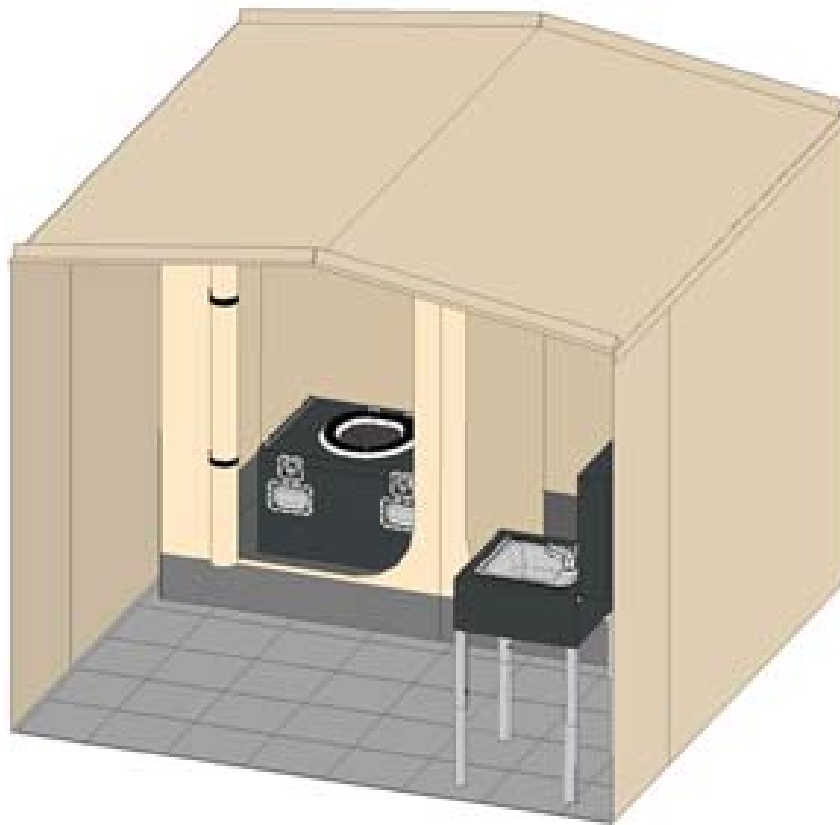


WESTERN SHELTER SYSTEMS
GATEKEEPER™

Hygiene Center HC-GK20-1935



Assembly Manual

11/21/06

Shelter Component Specifications

Frame Specifications

- All-aluminum frame constructed of 6063-T5 and 6061-T6 alloys with clear industrial anodized support members.
- Octagonal frame configuration, pivoting from a central fixture. Roof trusses and uprights shall be one assembly.
- Eave bars and base bars shall lock and unlock into the mainframe with integral spring-loaded buttons, requiring no tools for assembly. Eave bars and base bars shall have a clear anodized finish.
- Eave bars shall be of an extruded design to accommodate rigid hook-and-loop fastening strips for the attachment of roof and sidewalls.
- Upright legs shall lock either up or down with a steel captive locking pin. Legs shall have a flat foot with provisions for securing to the ground or floor surface. Legs shall provide a full 6-foot sidewall.
- The frame assembly shall include aluminum vented weather caps.
- Doors shall be aluminum framed and fabric covered.

Cover Specifications

- The entire cover shall be of 14-oz vinyl-covered polyester scrim.
- The material shall meet NFPA-701 standards for fire resistance.
- The material shall contain ultra-violet ray and mildew inhibitors.
- Roof panel sections shall be thermo-welded to insure against leakage.
- All fabric security to the frame shall be by the hook-and-loop fastening process.

WARRANTY

Western Shelter Systems warrants all products against defects in materials or workmanship for a period of one year from date of manufacture. No warranty is made or implied regarding the intended use of the product. Warranty does not cover damage caused by abuse, misuse, neglect or improper care by the end user in the application of the Western Shelter Systems product. Western Shelter Systems will repair or replace any component deemed to be faulty from the manufacture in the most efficient and timely means available to Western Shelter Systems. Western Shelter Systems must authorize all claims prior to any action taken by the end user. For immediate attention regarding any defective product, please phone Customer Support at 1-800-971-7201, 7am-3:30pm, Pacific Time.

CUSTOMER SUPPORT

ONLINE: www.westernshelter.com/sheltersystems.php
TELEPHONE: 1-800-971-7201 Mon-Fri, 7am-3:30pm, Pacific Time
FACTORY TRAINING: 830 Wilson St., Eugene, Oregon USA
ON-SITE TRAINING: Call for estimate and scheduling.

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1. Case Contents

The Western Shelter Systems Hygiene Center consists of four components:

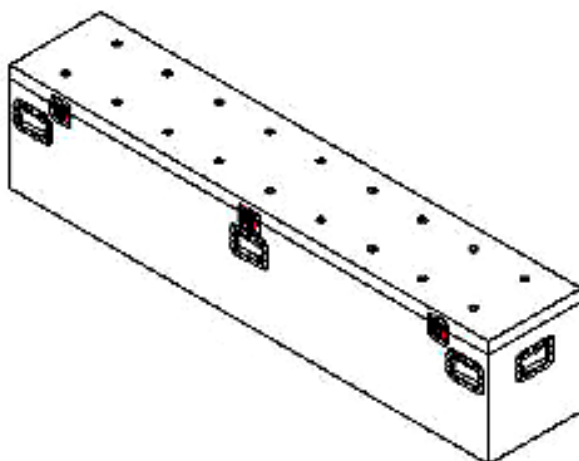
- An outer frame and shell, based on the Vestibule concept.
- A zippered individual shower stall.
- A zippered individual toilet stall with commode and disposable relief pouches.
- A single-basin field sink.

Additionally, plumbing and water distribution equipment is provided to interface the Hygiene Center with existing water and sewage utilities. 150-gallon containment bladders are also provide if utilities are not available.

All of these components ship in four aluminum travel and storage cases. The contents of each case are listed below:

Case 1 of 4

WS-2020 94"X18"X21" 248 LBS.

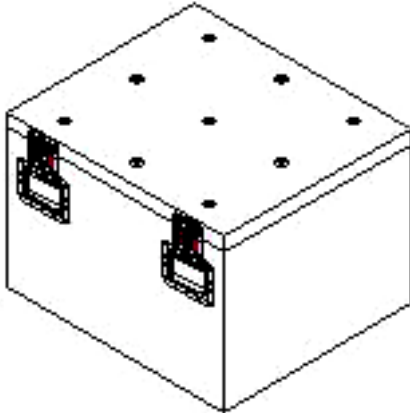


- | | |
|--------------|--|
| 1 - #HC-2ST | Vinyl Hanging Shower and Toilet Stall Liner. |
| 1 - #AEB20 | Arched eave bar. |
| 1 - #ARB20 | Arched ridge bar. |
| 1 - #VE-HCBB | Vest. Entry/Hygiene Center base bar. |

- | | |
|---------------|--|
| 2 - #VE-HCBBA | Vest. Entry/Hygiene Center base bar assy |
| 1 - #VE-HCEFA | Vest. Entry/Hygiene Center end frame. |
| 1 - #EB-20 | Eave bar for HS1935/HO20. |
| 1 - #HC-WP | Vinyl Wall Panel – Wall Split. |
| 1 - #VC-RP | Vinyl Roof Panel w/Insulation |
| 1 - #HC-FL | Vinyl Floor Panel |
| 1 - #HC-EC | Vented End Cover |
| 1 - #HC-PC | Privacy Curtain |
| 2 - #ST-33 | 3'x3' Rubber Shower Floor Mats. |
| 1 - #WSD-SC | Shower Caddy |
| 1 - #WSD-DB | Dry Bag |
| 1 - #WS-S1A | Single Basin Sink. |
| 1 - #HWTSK-2 | High Wind Tie Down stake kit, 2-pc. Kit. |

Case 2 of 4

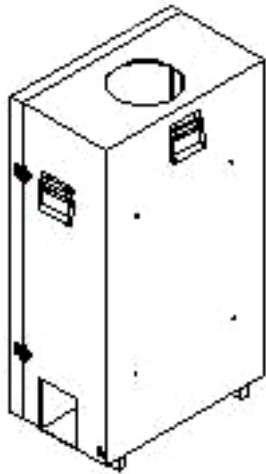
WS-2020 28"x34"x21" 186 LBS.



1 - # EJ110	Primary Water Distribution Pump.	4 - #75SV	¾" GHT Shut-off valve.
1 - # 1PVC-36DMC	1" x 36" PVC suction hose coupled double 1" male poly-cam connection.	2 - #75WV.S	¾" GHT Wyes w/ shut off valves
1 - # 1PVC-12MCMK	1" x 12' PVC suction hose coupled double 1" male poly-cam connection.	2 - #75DM	¾" GHT Double Male Adapter.
1 - # T-448	1" Brass strainer/foot valve.	1 - #.50X25GHTG	½" x 25' Gray Water Discharge Hose, Black.
1 - # PWTST	Potable water test kit.	4 - #75DF-SW	¾" GHT Double female-swivel adapter.
1 - # TTP-150	150 Gallon Potable Water Bladder	1 - #ACC500GHFV	¾" GHT 4-way manifold Valve assy.
1 - # .50X50GHTH	½" x 50' Hot Water Discharge Hose – Red.	2 - #75F-CCA	¾" GHT Cap and chain assy.
1 - # .50x25GHTC	½" x 25' Cold Water Discharge Hose – Blue.	12 - #75SG	¾" GHT Rubber Swivel gaskets.
1 - # TTG-150	150-Gallon gray water bladder kit.	1 - #HC-MK	Shower Manifold Assembly.
1 - # PTC-12A-GWA	Gray Water Bladder Adapter.	2 - #WDK-FBV	Cordura™ Fittings Bag.
1 - # DDP-550PCSB	Sump Pump kit.	1 - # WDK-NAB	Nylon 2-Compartment Adapter Bag.
2 - # .50X15GHTG	½" x 15' Gray Water Discharge Hose, Black.	6 - #ZT-7	7" Zip ties, black.

Case 3 of 4

82 LBS.



1 - **#WS-12AHZ**

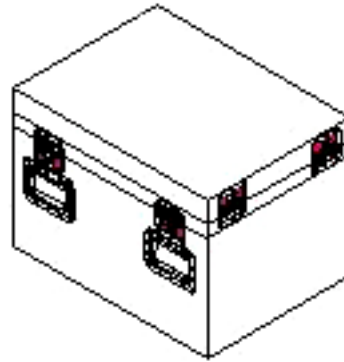
Propane-fired field water heater in aluminum case

1 - **#WS-12AHZ-WK**

Wheel Kit for WS-12AHZ

Case 4 of 4

82 LBS.



1 - **#BRTB**

Toilet-In-A-Box™ system

2 - **#PQ303**

Porta Quick™ bucket commode system
(Includes commode, seat & 3 - #BR901 Daily Sanitation Kits.

100 - **#BR500**

Solid Waste Pouch.
Includes toilet paper and antiseptic wipes.

100 - **#BR608**

Liquid waste pouch.
Includes antiseptic wipe.

2. Shell Assembly

The Hygiene Center shell can be attached to any Western Shelter Systems GK20 or GK1935 shelter at a wall seam connection point. It consists of an aluminum framework, supporting vinyl floor, wall and roof sets. A vinyl double stall assembly, with zippered privacy doors mounts securely in the rear of the shell.

Erection of the shell assembly requires the following components:

- Arched eave bar, 1 ea.
- Arched ridge bar, 1 ea.
- End frame assembly, 1 ea.
- Hygiene Base bars, 2 ea.
- Eave bar, 1 ea.
- Wall panel, 1 ea.
- Roof panel w/ insulation, 1 ea.
- Vented end cover, 1ea.
- Floor panel, 1 ea.
- Shower and toilet stall liner, 1 ea.
- Privacy curtain, 1 ea.



2.1 Frame and Floor

- a. On the shelter wall segment where your Hygiene Center is to be installed, roll back the wall, roof and floor panels far enough to expose the aluminum frame on all four sides of that segment.



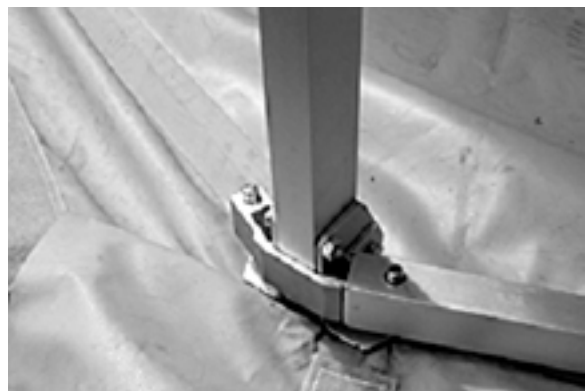
- b. Unbuckle the web straps on the floor at either end of the wall segment, allowing that section of the floor to lay flat.



- c. Remove the eave bar from the wall segment and set it aside. (It will be used in step I.) Replace the eave bar with the Arched Eave Bar. The black fastening strip on the Arch Bar should face back into the shelter.



- d. Remove the base bar from the shelter wall section and set it aside. (It will be used in step j.)



- e. Lay the Hygiene Center floor panel on the ground in front of the wall segment. The end attaching to the shelter is clearly labeled "Watch your step" in red.



- f. To connect the floors, fold back the ends of the Hygiene Center floor panel to expose its tan fastening strip. Connect this to the tan fastening strip on the GateKeeper shelter floor starting at center arrows.



- g. Once the two fastening strips are connected, fold the floor panel back over the shelter floor, and tuck the edges under the frame.



- h. Unfold the end frame assembly so both leg bars are in their full down position.



- i. Lock the leg bars into place, using their captive locking pins.

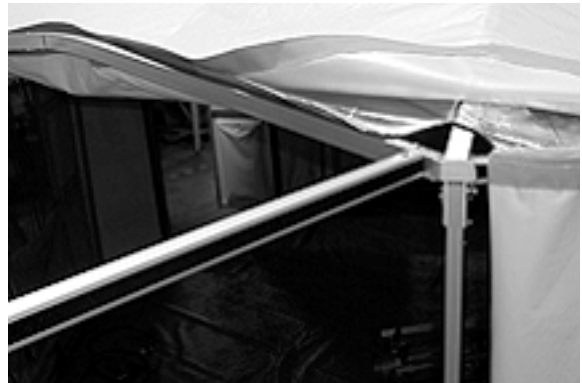


- j. Connect the Hygiene Center base bar between the leg bars of the end frame assembly.



- k. Connect two straight eave bars (one from the Hygiene Center kit and one removed in step c) between the lower ends of the shelter arch bar and the end frame assembly. The black fastening strips should face out.

NOTE: Keep eave bars supported at all times during installation. Allowing eave bars to hang from one connection point may cause irreparable damage to the frame



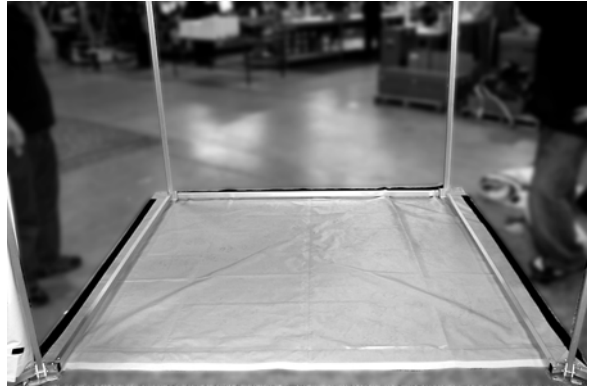
- l. With at least one person supporting the end frame assembly, connect the two Hygiene Center base bars between the end frame assembly and the shelter frame.



- m. Connect the arched ridge bar between the shelter arch bar and end frame assembly. Again, keep the eave bar supported at all times during installation.



- n. Make sure the floor is centered under the shelter frame. If necessary, lift the frame to reposition the floor panel.



- o. At each of the outside corners, thread the black web strap through its D-ring and pull snug to form a berm around the frame.



- p. When properly fitted, the floor panel should wrap around the frame to a uniform height of 6"



2.2 Walls and Roof

- Remember, the Hygiene Center must be connected at a wall seam.

- a. Unroll the shelter wall panels along the Hygiene Center frame.



- b. Be sure the wall panels do not gap in the corner where the Hygiene Center meets the shelter. They should fit snugly against the frame.



- c. Starting at either shelter wall segment, attach the Hygiene Center wall panel



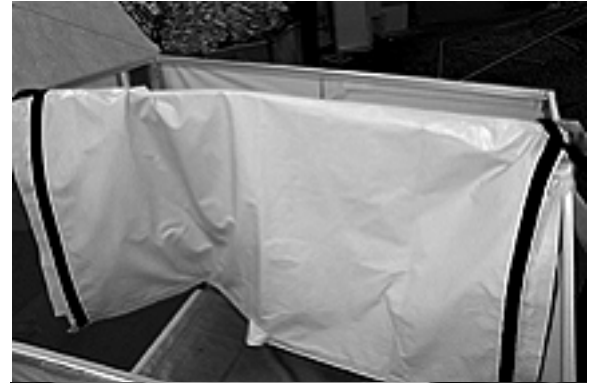
- d. Inside the Hygiene Center, attach the floor to the weather flap running along the base of each wall panel.



- e. A series of web straps are attached to the weather flap on each wall panel. Working inside the Hygiene Center, thread these straps under the nearest base bar, snap the connectors together and lightly snug the strap. To insure a proper seal, make sure the floor is securely attached to the walls and the walls securely attached to the frame.



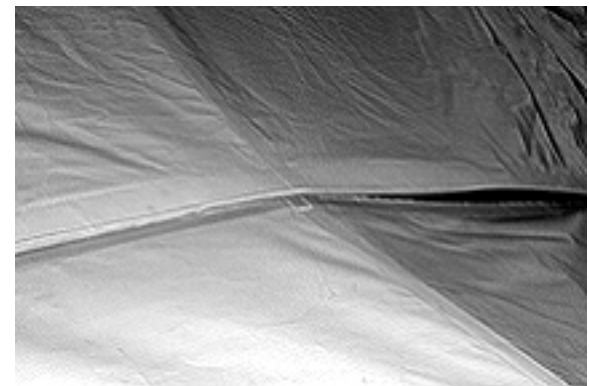
- f. Drape the roof panel over the arched ridge bar, with the middle seam of the panel running along the top of the bar.



- g. The roof panel must be centered for a proper fit. Use the black web strap on top of either end of the roof panel to center it on an arched eave bar. Starting in the middle and working out toward the ends, fasten the roof panel to the arched eave bars at either end of the Hygiene Center.



- h. Line up the center seam in the Hygiene Center roof panel with the middle seam in the shelter roof. Attach the panels at this point.



It is easiest to do this from inside the Hygiene Center.

- i. Working outward from the center, connect the shelter and Hygiene Center roof panels.



- j. When connecting roof panels, make sure the fastening strips seal completely in the corners where the Hygiene Center meets the shelter.



- k. Working out from the shelter, connect the Hygiene Center roof and wall panels.



- l. Attach the vented end cover panel to the roof panel. Start at the center seam and work your way out to the ends.



- m. After the vented end cover has been attached to the roof, Attach the bottom of the vent panel to the wall.



- n. Make sure the corners of the vented end cover completely cover the junction of the wall and roof panels.



2.3 Shower and Toilet Stall Liner

- a. Inside the Hygiene Center, unfold the shower and toilet stall liner. Locate the two suspension straps at the front and rear of the central dividing wall of the liner.



- b. Tuck the rear suspension strap over the arched ridge bar, near the back of the shelter. Buckle the strap, but do not tighten it at this time.



- c. Tuck the front suspension strap over the arched ridge bar, near the middle of the shelter. Buckle the strap, but do not tighten it at this time.



- d. Locate the flapped fastening strips in the upper rear corners of both side walls.



- e. While holding the flap up out of the way, attach the sides of the stall to the inside walls.



- f. Fold the flaps back down over the stall sides.



- g. At the top of the divider wall between the stalls is a translucent panel. Feed this panel over the top of the center ridge bar



- h. Pull the translucent panel down over the lamp and secure it to the divider wall.



- i. Adjust the suspension straps on either end of the divider wall so the front and back walls of the stall hang even with the divider wall.



- j. The physical structure of the Hygiene Center is now complete.



2.4 Lighting

Each GateKeeper shelter ships with one extra **WS-T12** fluorescent lamp, for use in a Vestibule Connector, Entryway or Hygiene Center. Use this lamp to provide light for the Hygiene Center.

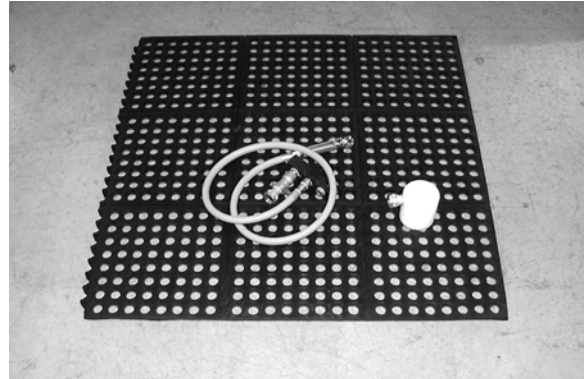
- a. Feed the fluorescent lamp fixture through the gap in the top center of the hanging shower and toilet stall liner.
- b. Inside the stall, feed the lamp's bungee cord over the center ridge bar and hook it back on itself.
- c. Feed the bungee cord on the other end of the lamp over the center ridge bar and hook it back on itself. Position the lamp so that half its length is inside the stall and half outside.



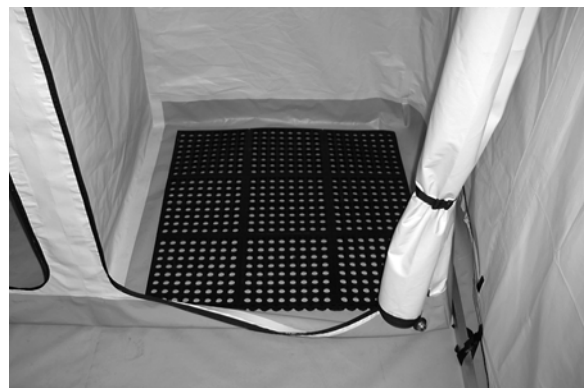
3. Shower

Either side can be plumbed for use as a 1-person shower unit. Configuring this stall for shower use requires the following components:

- 3' x 3' shower floor mat (1 ea.)
- Shower manifold assembly (1 ea.)
- Sump strainer. (Located in the **DDP-550PCSB** kit, 1 ea.)



- a. The shower mat is pre-installed in the center of the stall floor.



- b. Hook the shower manifold assembly to the metal D-ring at the top of the divider wall, near the rear of the stall.



- c. Hang the spray nozzle on the black plastic D-ring on the divider wall, below the manifold



- d. Thread the sump strainer onto the brass strainer in the base of the stall. It is not necessary to tighten the fittings more than finger tight.



- e. Orient the strainer so the open end is pressed against the stall floor.



- f. The shower kit includes one mesh shower caddy and one waterproof vinyl dry bag. Hang these accessories in the shower as desired.



4. Commode

Either stall of the Hygiene Center is designed to accommodate one WSS Toilet-In-A-Box personal relief system. The Toilet-In-A-Box system ships in its own self-contained storage and transport case with the following components:

- External lid (1 ea.)
- Internal lid with hinged seat (1 ea.)
- Receptacle buckets with lids (2 ea.)
- Rubberized gasket (1 ea.)
- Personal Relief caddy (1 ea.)
- Brief Relief liquid waste pouches (12 ea.)
- Disposa-John solid waste pouches (6 ea.)

(Additional Brief Relief and Disposa-John pouches are available for purchase from Western Shelter Systems.)



One 3' x 3' rubberized shower mat is pre-installed, included in case **1 of 4**.

4.1 Toilet-In-A-Box Assembly

- Remove the outer and inner lids from the box to access the receptacle buckets.
- One bucket contains a rubberized seat gasket, the other a mesh shower caddy and Daily Restroom Kit packets.



- c. Place the rubberized gasket on the lip of one bucket, and place that bucket in the center of the case.

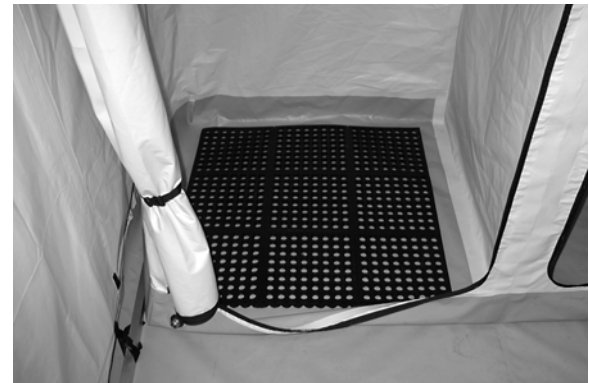


- d. Reattach the inner lid of the case. Position the rubberized gasket directly below the white toilet seat.



4.2 Toilet Installation

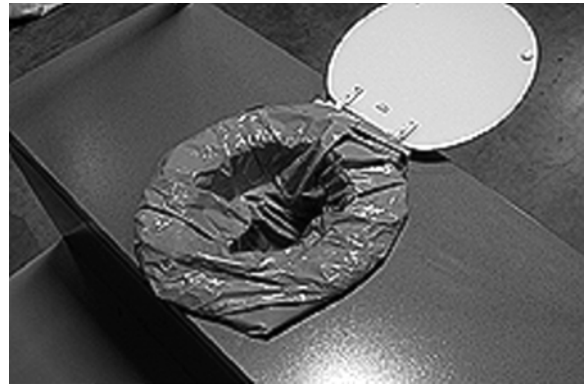
- e. One 3' x 3' shower mat is pre-installed in the center of the stall floor.



- f. Place the Toilet-In-A-Box unit in the stall, on top of the shower mat.



- g. Disposa-John portable restroom packets are designed to be used in conjunction with the Toilet-In-A-Box commode seat. Refer to the back of each Disposa-John packet for installation assistance.



- h. Hang the stall caddy from the metal D-ring in the inside rear corner of the stall. Stock the caddy with Brief Relief and Disposa-John Daily Restroom kits.



5. Sink

The Hygiene Center includes one WS-S1A single basin sink. The sink ships in its own self-contained storage and transport case, containing the following components:

- Sink unit (1 ea.)
- Upper leg segments (4 ea.)
- Lower leg segments (4 ea.)
- Leg storage bags (2 ea.)



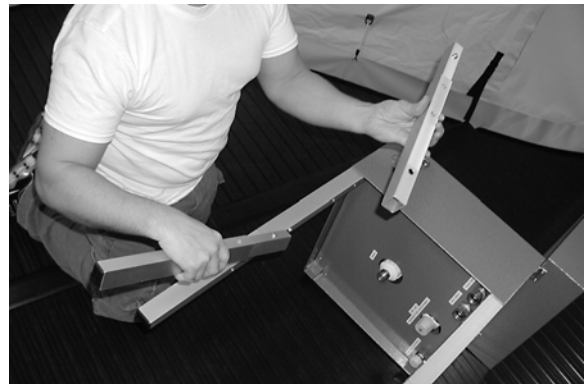
- a. Open the sink unit and remove the two leg storage bags, secured on either side of the inner lid.



- b. Close and re-latch the lid before proceeding.



- c. Each leg ships in upper and lower segments. Snap the two segments together before attaching the legs to the sink.



- d. Slide the legs into position in the bottom corners of the sink unit. (Note the legs friction-lock into the sink unit; they do not “snap” into place.)



- e. Reopen the sink unit and lock support struts into position.



- f. Position the assembled sink against the wall on the shower side of the Hygiene Center.



6. Plumbing

Hygiene Center plumbing consists of two main segments: Internal and External.

- Internal plumbing routes fresh and waste water to and from the shower and sink, and includes the hoses and pumps to make this possible.
- External plumbing provides for fresh water staging and heating, and gray water collection. It includes the hoses, bladders, pump, and heater to make this possible.

6.1 Internal Plumbing

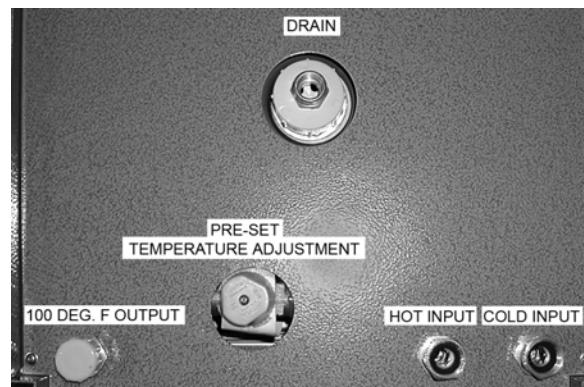
All components necessary for plumbing the Hygiene Center are located in cases **1 of 4** and **2 of 4**. Plumbing the inside of the Hygiene Center will require the following components:

- 25' red hot water hoses (2 ea.)
- 25' blue cold water hose (1 ea.)
- 15' black drain hoses (2 ea.)
- Check valves (2 ea.)
- Sump pump kit with switch box (2 ea.)
- 36" black drain hoses (2 ea. – located in sump pump kit.)

6.1.1 Fresh Water Supply

Four Garden Hose Thread (GHT) connectors are located on the bottom of the sink unit. These connectors are labeled:

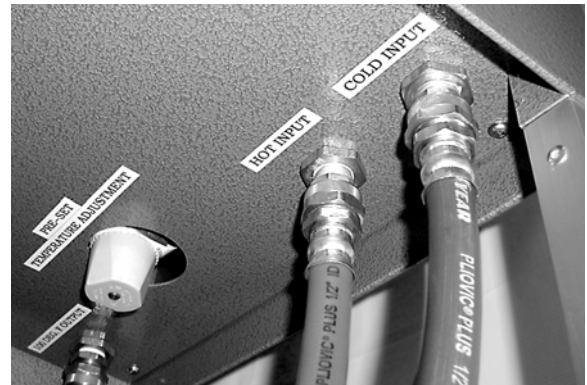
- Drain
- 100 Deg. F Output
- Hot input
- Cold Input



- a. Attach the male end of one 25' blue cold water hose to the "Cold Input" connector on the bottom of the sink.



- b. Attach the male end of one 25' red hot water hose into the "Hot Input" connector on the bottom of the sink.



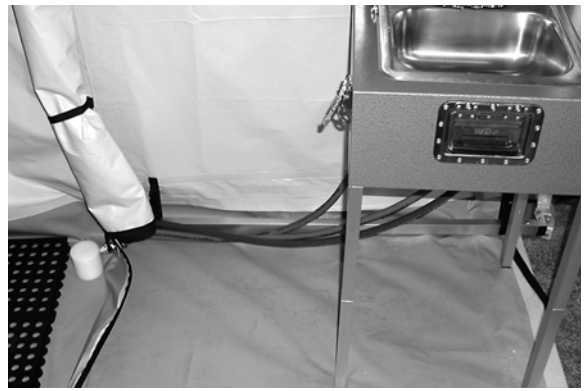
- c. Attach the female end of one 25' red hot water hose to the "100 Deg. F Output" connector on the bottom of the sink.



- d. Feed the 25' red hot water hose from Step c through the gap between the shower stall and the side of the Hygiene Center. Connect the male end of that hose to the shower manifold at the back of the stall.



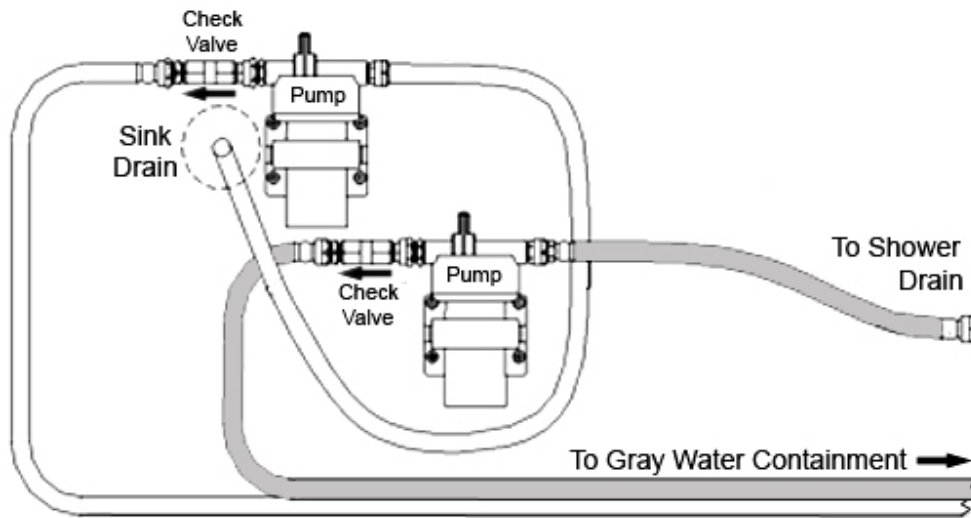
- e. Coil the remaining hoses and tuck them into the gap between the shower stall and the Hygiene Center wall.



6.1.2 Gray Water Return

The shower and sink unit feature independent drainage systems, facilitated by two 115V DPP-550 sump pumps. Switch boxes are provided to connect the pumps to your AC power source.

- a. Western Shelter Systems recommends configuring gray water return in the following configuration:

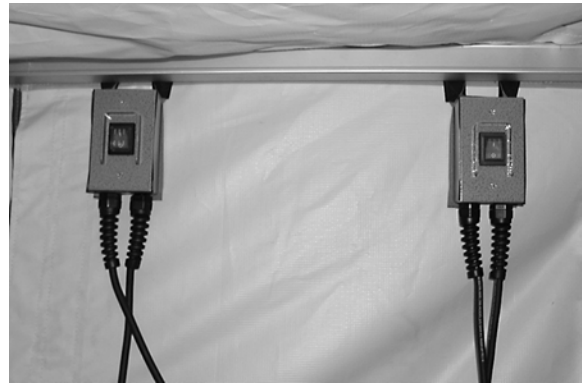


Run two 36" black drain hoses between the pumps and drains, and connect two 15' black drain hoses to the check valves.

- b. Tuck the gray water return system under the sink to minimize tripping hazard.



- c. Each DPP-550 sump pump ships with an electrical switchbox. Hang the switchboxes from the eave bar above the pumps. Plug each pump into its switchbox, and connect the switchboxes to a 115VAC power supply.



IMPORTANT! Turn off the pumps when not in use. The DPP-550 sump pumps have a “dry run” feature that will prevent them from becoming damaged in the event the water source has been exhausted. However, prolonged use without water may result in damage to the pump units.

- d. Coil the gray water hoses and tuck them into the gap between the shower stall and the Hygiene Center wall. Reach in through the plumbing duct from the outside of the Hygiene Center, and pull the coiled hoses through the duct.



- e. Tighten the web strap on the outside of the plumbing duct to tighten it around the hoses.



6.2 External Plumbing

The Hygiene Center requires a source of hot and cold potable water, as well as a collection or disposal system for gray water discharge. A water distribution kit is provided to interface Hygiene Center plumbing with any available water and sewer services.

If service is unavailable, pumps, water heaters and storage bladders are provided with the standard Hygiene Center kit.

Please note the included WS-12AHZ Water Heater will require a source of propane gas, and the EJ110 Primary Distribution Pump will require 110V AC to function.

7.0 Maintenance, Care and Repair

The life span of a Western Shelter depends on how well it is maintained.

Western Shelter Systems provides protective bags for shipping and storage. The field bags are made of 18-oz vinyl coated polyester, which will withstand a reasonable amount of use. All bags have carry handles, so dragging units is not necessary or recommended. All bags are easily carried by two people.

Replacing the components in the proper bags insures all parts will be accounted for, and ready for deployment, by the next user. Optional storage and transport aluminum cases convert to tables and desk when empty.

7.1 Vinyl Care

While the 14-oz vinyl is basically inert, mild soap and water will normally remove most contaminants from the surface. If necessary, more aggressive chemicals may be used without damaging the fabric.

In some cases it may be necessary to put the fabric into bags wet. It is recommended that the fabric be dried at a later time and returned to the bags ready for the next deployment.

8.0 Replacement Parts and Accessories

Western Shelter Systems offers a full line of replacement parts, as well as a wide range of optional accessories for all GateKeeper shelters. To view a list of parts and accessories, visit: <http://www.westernshelter.com/sheltersystems.php>

WESTERN SHELTER SYSTEMS™

Shipping: 830 Wilson Street – Mail: PO Box 2729
Eugene, OR 97402 USA

TELEPHONE: 1-800-971-7201 (toll free) – 1-541-344-7267 (direct)
FAX: 1-541-284-2820 – EMAIL: wss@westernshelter.com
CUSTOMER SUPPORT: Mon-Fri, 7am-3:30pm, Pacific Time