CL-ACXE-1200 HVAC

Robust Temperature and Humidity Control

WESTERN SHELTER SYSTEMS

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CONDITIONAL WARRANTY

Western Shelter Systems warrants all products against defects in materials or workmanship for a period of one (1) year from date of manufacture. Component manufacturers' warranties may exceed that of Western Shelter.

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 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-330pm PST.

Shipping: 815 Conger St. Eugene, OR 97402
PO Box 2729 Eugene, OR 97402 USA
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www.WesternShelter.com

A. WARNINGS

⚠ WARNING

FOLLOW ALL WRITTEN AND COMMON SENSE SAFETY PROCEDURES WHEN OPERATING THIS UNIT. FAILURE TO DO SO MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY.

⚠ WARNING

DO NOT TOUCH TOP OF COMPRESSOR. MAY CAUSE MINOR TO SEVERE BURNING.

⚠ CAUTION

CONTAINS REFRIGERANT!
SYSTEM CONTAINS OIL AND REFRIGERANT UNDER HIGH PRESSURE.

⚠ WARNING

TO PREVENT INJURY OR DEATH DUE TO ELECTRICAL SHOCK OR CONTACT WITH MOVING PARTS, DISCONNECT UNIT BEFORE SERVICING.

⚠ CAUTION

ANY SERVICE PROCEDURES NOT DETAILED IN THIS MANUAL MUST BE PERFORMED BY A QUALIFIED SERVICE TECHNICIAN.

B. APPLIANCE DETAILS

Rating: 208 or 240 Volts, 30-Amp, Single-Phase, 60 Hertz

CFM: 1,400

Cooling: 3.5 tons, 41,000 Btu/hr EER/ SEER (Btu/Watt Hr) - 10.5/12.05

Heating: 42K Btu/hr
Supplemental Heating: 27/36K Btu/hr (Requires separate 50 Amp circuit for operation.)

Ducting:
XE12UD Discharge - 12-inch
XE12LD Return - 14-inch
XE12FLTR (Replaceable 16”x25”x1” filter.)

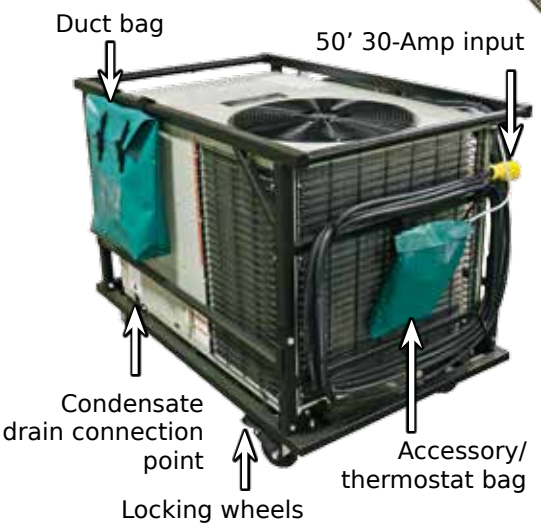
Dimensions: (L x W x H) - 56” x 35” x 41.5” (including cart)

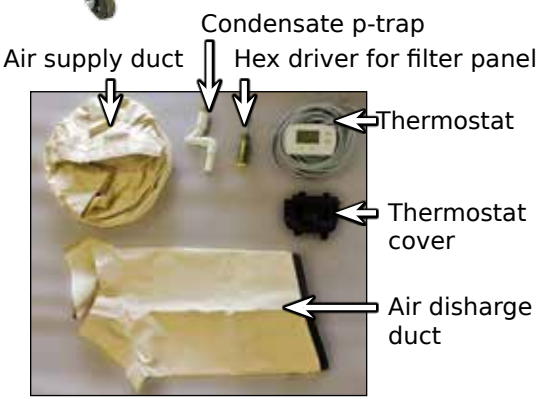
Stackable Dimensions: (L x W x H) - 56” x 35” x 47.5”

Weight:
Standard (Stackable)
526 lbs. (550 lbs.)

Optional and Replacement Equipment:
WAC-12 12” Window Duct Panel

C. COMPONENT IDENTIFICATION





D. OPERATING INSTRUCTIONS

ATTENTION

Be sure you have read and understood all safety warnings before attempting to operate this unit.

1. Setup

➢Remove the cover and orient the unit so the circulation vents face one of the HVAC attachment points on your shelter. Locate the unit on solid, level ground, using shoring or a plywood base if necessary.

➢**Note:** The main power cables and thermostat are routed around the back of the unit. The 30-Amp cable can attach to either an electrical distribution box or directly to a generator with a 30-Amp, 208/240V output.

➢**Note:** In the green vinyl pouch on the rear of the unit, you will find the thermostat with 50 foot cable, operations manuals, and a hex driver for unit maintenance.

➢The HVAC unit attaches to any of the duct boot openings around any WSS shelter. To eliminate trip hazard, it is recommended that the HVAC unit be positioned away from the most used doorways if possible.

➢To access the panels, remove the square vinyl covers from both ports, and the square insulation panels, if installed. They can be stored in the duct-boot bag on the HVAC unit so they will not be misplaced.

➢If you are using an air plenum, install it now. See documentation accompanying the air plenum for installation information.

➢In the side pouch are the two duct boots for attaching the HVAC unit to your shelter. The tapered boot attaches to the top of the unit, and the re-enforced boot with filter screen attaches to the bottom. Also in the pouch is the p-trap for condensation discharge.

➢Attach the duct boots to the shelter. The angled boot goes on top, and the re-enforced boot underneath.

➢To attach the unit, align it with the duct boot openings, about two feet from the shelter wall.

➢Attach the duct boots to the HVAC unit with the black nylon straps. Place the lower duct boot over the lower port, then snug the strap tight. Be sure the seal is tight all around. Repeat on the top port. Move the unit back a few inches to put some tension on the boots so air will flow easily. Lock the wheels.

➢Attach the p-trap by filling it with water, capping one end with your hand, and firmly push the non-threaded end into the drain. A standard garden hose can be attached to drain water away from the shelter base.

➢Unwrap and install the thermostat. Make a small opening in the bottom of the upper duct opening and pass the thermostat through, along with 50’ of cable.

➢Inside the shelter, string the cable over roof trusses until it is located on the opposite side of the shelter from the ducting. This results in a more accurate reading of the shelter temperature.

➢Secure the thermostat about six feet off the ground.

2. Operation

➢**CAUTION:** Be sure the green vinyl bags are away from air intakes when the unit is operational

➢If you are drawing power directly from a generator, attach the power cable from the HVAC system to your generator. Generator operation is not covered in this manual, and should be performed by a trained individual. You can also attach the system to an electrical distribution box. The main power connects to a 30-Amp outlet, and the emergency heating to a 50-Amp outlet.

➢Once the system is connected and the power is running to the unit, set the desired temperature and system mode on the thermostat. The unit is designed not to change modes more than once every three minutes, so it may take up to three minutes for the HVAC unit to begin operating.

➢The thermostat has very simple controls. The “SYSTEM” button switches between cool, heat, emergency heat and off. The fan can be switched to either Auto or On position and programmed with a 90 second Off-delay. To adjust the Off-delay see page 7. The up and down buttons set the desired temperature. The system is designed to go into emergency heating mode, if available, when the ambient temperature is at least six degrees cooler than the temperature set on the thermostat.

3. Emergency heat

➢The emergency heat connection, if included on you unit, can be located under the small panel above the “emergency heat power” notice. This connection will boost the heating power of the unit by 11,000 BTUs/hr, and requires a 50-Amp, 240 volt connection. The connection draws 42 Amps continuously when operating, so plan your power distribution accordingly. When operating in conditions under 40 degrees, the emergency heat is recommended to keep the unit running well.

4. Switching operation voltage

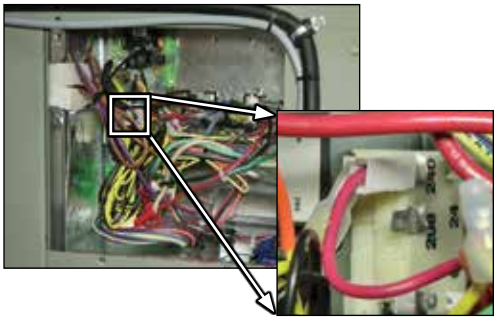
DANGER

COMPLETELY DISCONNECT ALL ELECTRICAL SYSTEMS BEFORE SWITCHING VOLTAGE.

➢The HVAC unit is capable of running off either 208 or 240 volts, depending on your electrical setup. Do not change modes without a solid understanding of your electrical distribution setup. Do not run the HVAC unit until it is properly setup up for your system.

➢To change between 208 volt and 240 volt operation, detach the panel with shock hazard warnings located next to where the power cables come out of the unit.

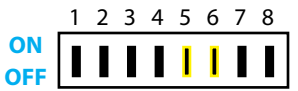
➢Locate the red wire with white clip running to a transformer with two leads. The leads are printed “208” and “240.” When using a single-phase generator, connect to the 240 volt connection. When using three-phase generator, connect to the 208 volt connection. The unit comes preset to the 208 volt connection, unless otherwise noted on label.



Fan Off-Delay options:

90 seconds	SW5 ON	SW6 OFF	set by factory
180 seconds	SW5 ON	SW6 OFF	option 2
0 seconds	SW5 OFF	SW6 OFF	option 3

Switch is located on the lower left power panel and is colored blue.



WARNING: Follow the hazardous voltage instructions on front panel!

E. MAINTENANCE / TROUBLESHOOTING

➢You can do some of the periodic maintenance functions for your XE1200 unit yourself. These functions include replacing the disposable or cleaning the permanent air filters, cleaning the unit's cabinet, cleaning the condenser coil, and conducting a general inspection of the unit on a regular basis.

1. Replacing the air filter

➢It is very important to keep the duct system air filters clean. Be sure to inspect them at least once each week when the system is in constant operation.

➢Replace used filters with new filters of the same type and size. Do not try to clean disposable filters.

➢Located on the front side of the unit are the discharge and return ports. The air return port uses a filter similar to most home systems (16x25x1), and can easily be replaced.

➢To replace the air filter, unscrew the four hex screws securing the front port cover. Inside the cover is the air filter. Pull up on the filter, then out on the bottom to remove. Place a new filter in top end first and push up to fit into place.

2. Cleaning outdoor coil

➢With the front cover off, you can see the heating and cooling elements. They should be free from dust and debris.

➢Unfiltered air circulated through the unit's outdoor coil can cause the coil's surface to become clogged with dust, dirt, etc. To clean the coil, stroke the coil surface with a soft-bristled brush vertically, that is, in the direction of the fins.

3. Professional service checklist

➢To keep your unit operating as designed, a qualified serviceman should check over the entire system at least once each year as well as any other time that you feel that service is needed. Your serviceman should examine and inspect:

•Filters (for cleaning or replacement)

•Motors and drive system components

•Condenser coils (for cleaning)

•Safety controls (for mechanical cleaning)

•Electrical components and wiring (for possible replacement and connection tightness)

•Condensate drain (for cleaning)

•Unit duct connections to see that they are physically sound and sealed to the unit casing

•Unit mounting support to see that it is sound

•Unit to see that there is no obvious unit deterioration.

4. Troubleshooting check list

•Is the unit properly and securely located and level with the proper clearance?

•Is the duct work correctly run with the proper unit arrangement?

•Is the condensate line properly run? Does it drain freely?

•Is the filter of the correct size and number? Are the supply and return ports unobstructed?

•Is the power supply correct for the unit's requirements?

•Are all wiring connections, including those in the unit itself, tight?

•Is the thermostat well located and accurately adjusted?

•Do the outdoor fan and the indoor fan turn free without rubbing? Are both fans tight on their shafts?

•Are all cover and access panels in place to prevent air loss and to protect against safety hazards?

•Have all tools and debris around, on top of, and under the unit been removed?

5. Resetting the thermostat

➢It may become necessary to reset the unit thermostat. If the thermostat has lost power or is not operating properly, follow these steps to reset it.

➢Replace the AA batteries in the thermostat.

➢Press and hold the UP and FAN buttons until the unit display changes to settings mode.

➢Press the UP and DOWN buttons to change settings.

➢Press NEXT to advance to the next function.

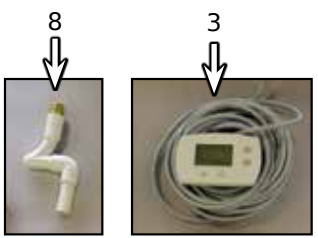
➢Press DONE to save and exit.

➢Factory recommended settings are as follows:

Setup Function	**Recommended Setting**
1 - System Type	5 - 2 heat/1 cool heat pump
2 - Changeover valve	0 - O/B terminal energized in cooling
6 - Second Stage Heat	9 - For electric furnaces
9 - Compressor Cycle	3 - Recommended
12 - System setting	0 - Manual changeover
14 - Temperature Display	0 - Fahrenheit (1 Celsius)
15 - Compressor protection	3 - Minutes
26 - Auxiliary Heat control	0 - Comfort
27 - Heat temperature range	90
28 - Cool temperature range	50

F. COMPONENT LIST

	PART #	DESCRIPTION
1	XE-12UFST	Frame, Upper for Stackable unit. Includes 2 handles and necessary hardware for upgrading standard frame.
2	XE12-PNL	Panel, Replacement XE-1200 Duct, with Filter
3	XE-12 TSTAT	Thermostat, Honeywell 2 Stage for XE-1200 HVAC (thermostat only)
4	XE12-CST5.2R	Caster, Rigid 5"x 2" Rubber on Steal
5	XE12-CST5.2S	Caster, Swivel 5"x 2" Rubber on Steal
6	XE 12 FLTR	Filter, 16x25x1 Pleated for XE1200 CASE OF 12 FILTERS
7	XE1200 CVR	Cover, Vinyl for XE-1200 HVAC unit
8	XE 12-DRN	Condensation Drain for XE1200



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