

X-VENTISO[®]

by earthcore[®]



XV 150 • XV 250 • XV 350

XV Chimney Fans

INSTALLATION INSTRUCTIONS



Issued: November 2024
– Revision 000

SAFETY INSTRUCTIONS

After installation, chimney fans are an integral part of the exhaust system and can influence the appliance to which it is connected. The chimney fan exhausts hot flue gas from the appliance, as well as improves the operation of the appliance. The design of the chimney system must follow all local and national codes.

The XV Chimney Fan is listed to the following standards:
UL378 Standard for Draft Equipment, rated up to 1,000°F continuous, 1400°F abnormal operation.
UL705 Standard for Power Ventilators.
UL762 Standard for Power Roof Ventilators for restaurant exhaust appliances rated up to 1,400°F abnormal operation.

CAN3-B255-M81 Standard for Mechanical Flue Gas Exhausters, rated up to 1,000°F continuous, 1400°F abnormal operation.

ULC S645 Standard for power roof ventilators for commercial and institutional kitchen exhaust systems
Please follow all code requirements according to NFPA 54 & NFPA 211. For solid fuel cooking appliances, follow NFPA 96.

The installation must follow national codes and standards. The chimney fan must be installed at the termination of the flue gas system. The fan must be safely secured to the chimney system.

- The chimney fan should be inspected after a burn out.
- A disconnect switch is required to ensure safety when cleaning the flue gas system and chimney fan.
- Be careful when opening and closing chimney fan; pay close attention to the hinge.
- Always disconnect the power supply with disconnect switch before working on chimney fan and wait for the impeller to stop to avoid being injured by the rotating blade.
- Warning! Hot surface. The surfaces of the fan may be hot during or after operation. Allow chimney fan to cool down before working on it.
- Caution. This product has sharp edges. Wear gloves and lift chimney fan with both hands, holding it beneath the rim of the motor cover.
- These instructions are to be read and understood by all people that install, operate, or maintain the chimney fan.

Range of Use

The XV has been designed for use with gas & solid fuel fireplace chimneys, solid fuel cooking appliances, and gas fired appliances.

INSTALLATION

1. INSTALLATION FOR MASONRY OR CUSTOM PLATE ADAPTORS

- Place the mounting plate over the opening of the inner pipe of the chimney or liner.
- Drill 3/8" holes through the mounting plate in the same pattern as the fan mount.
- Place a bead of temperature-resistant silicone or ceramic fiber to ensure a balanced motor operation.
- Mount chimney fan on mounting plate and fasten entire unit with stainless screws in the previously drilled holes.
- The chimney fan must be sealed tightly with the liner (for double-wall flue gas systems, refer to section 2).
- The XV should not be enclosed. The screws must ensure a stable and windproof fastening. The chimney cover must be connected firmly with the chimney shaft or must have enough dead weight to hold the chimney fan against wind (if necessary, connect the cover separately with the chimney shaft).
- Ensure chimney/ vent termination extends above roof in accordance with chimney/ vent manufacturer instructions and local code.

2. INSTALLATION OF FACTORY FABRICATED CHIMNEY

- Refer to chimney manufacturer's instructions to install chimney to location of termination.
- Refer to XV Fan Adapter installation guide for instructions.
- Screw adapter onto chimney fan and then plug the whole assembly into the chimney.

Please remove the cardboard inserts from inside fan housing before first start-up!

ELECTRIC CONNECTION

- For electric installation, please follow the local and national codes and regulations.
- The electric connection between the connection box and the chimney fan is completely pre-wired.
- During connection work, the system must be powered off.
- Refer to NEC for proper circuit breaker protection and wire gauge selections.



CLEANING/MAINTENANCE
Warning! Interrupt the power supply before starting work!

The chimney fan should be checked and cleaned if needed during the regular cleaning and inspection of the chimney and flue gas system at least once a year.

Cleaning Procedure:

- Switch off appliance with disconnect switch and make sure it cannot be turned on accidentally.
 - Let fan cool down to ambient temperature before cleaning.
 - Open both fasteners on the side.
 - Tilt XV Chimney Fan open to the back.
 - Thoroughly clean the impeller with a brush or spatula. Do not use carbon steel tools - corrosion risk! Only use plastic or stainless steel.
 - Clean the chimney fan casing and the lamination inside the casing.
 - Clean baseplate.
 - Shut fan and close it with fasteners.
- If the impeller is not cleaned properly, it may become imbalanced, causing vibrations when the XV is turned on. In this case, the cleaning must be repeated.

3. OPTIONAL CHIMNEY



SHROUD INSTALLATION REQUIREMENTS

⚠ A MAJOR CAUSE OF CHIMNEY RELATED FIRES IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF THE UTMOST IMPORTANCE THAT CHIMNEY SHROUDS BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.

Read all these instructions before beginning your installation. Failure to install the XV chimney and optional shroud as described in these instructions will void the manufacturer’s warranty and UL Listing. Keep these instructions for future use.

APPLICATION AND LISTING

As specified in these instructions, shrouds are approved for use with XV High Temp Chimney Fans. A Shroud built and installed in compliance with these instructions is tested and listed in accordance with UL Standards for use with XV Chimney Fans.

SHROUD REQUIREMENTS

Any shroud used in conjunction with the XV series fans must meet the requirements as specified in these instructions. Check with your local building code authorities for any shroud requirements. Shrouds must be able to be removed to allow chimney access to thoroughly clean the chimney. XV Fan installations, which include the use of a shroud, must comply with the following requirements.

RECOMMENDED MANUFACTURERS

- Earthcore Elemetal
- European Copper
- Lindemann
- American Chimney Shroud

POT STYLE SHROUD

The XV fan can be used with pot-style chimney shrouds when the top portion of the fan containing the motor is integrated into the top of the shroud.

OPEN-TOP STYLE SHROUD

The Open-Top style shroud is roughly square or rectangular with an open top for exhaust, as well as openings along the base of the four sides (see FIG. 1). TABLE 1 lists the minimum width and length and base opening area per side, depending on the fan size.

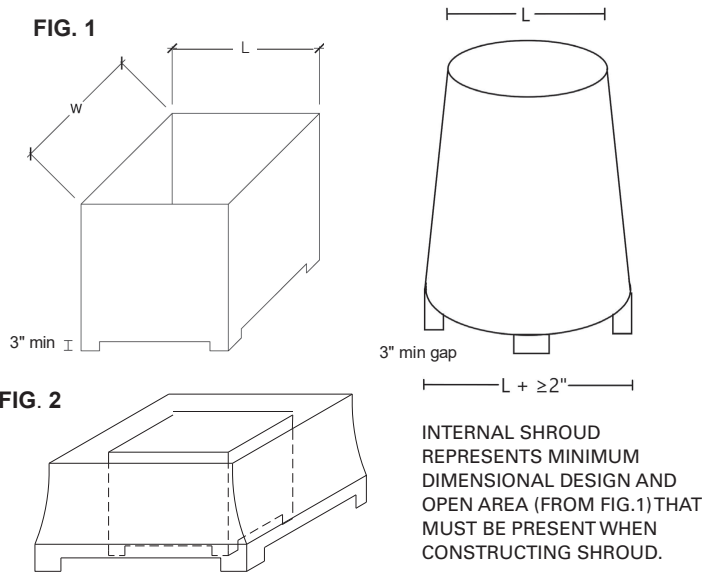


TABLE 1 MINIMUM DIMENSIONS

Fan	W = Min Width	L = Min Length
XV 150	24"	24"
XV 250	24"	24"
XV 350	32.5"	32.5"

Warranty:
Earthcore makes no warranty or representation of any kind, expressed or implied, concerning the materials, quality, workmanship, or installation of the 3rd party manufactured shrouds that may be used in connection with the XV Chimney Fans.

XV Chimney Fan

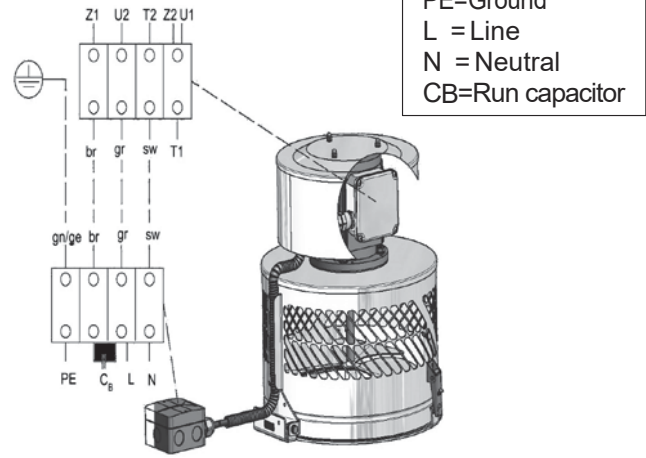
Follow instructions utilizing the Molex Quick Connections.

Safety Disconnect

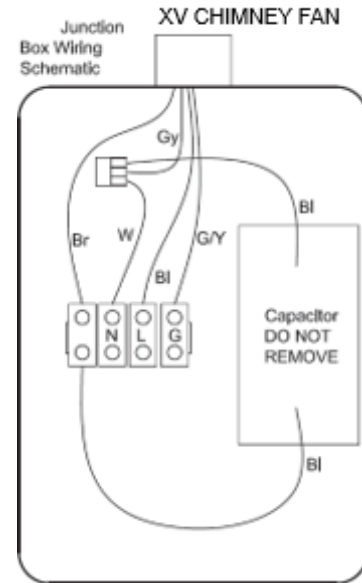
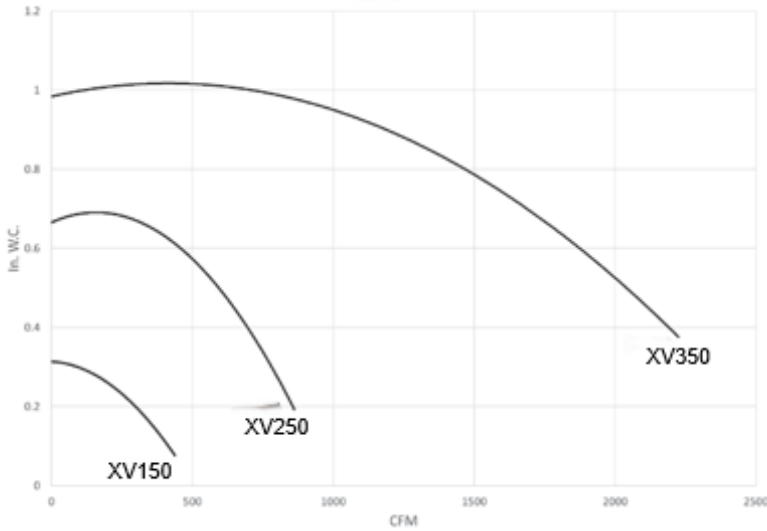
A Safety Disconnect Switch is integrated into the wiring of the XV Fan..

Fan Controllers

Refer to controller installation and operation manual and accessories for proper installation.

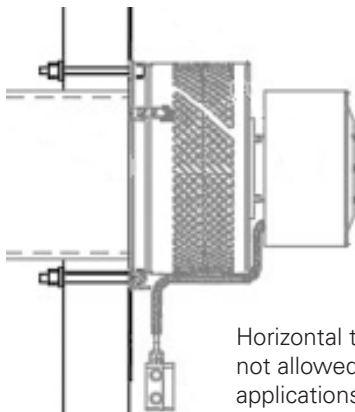


XV FAN CURVES



NOTES

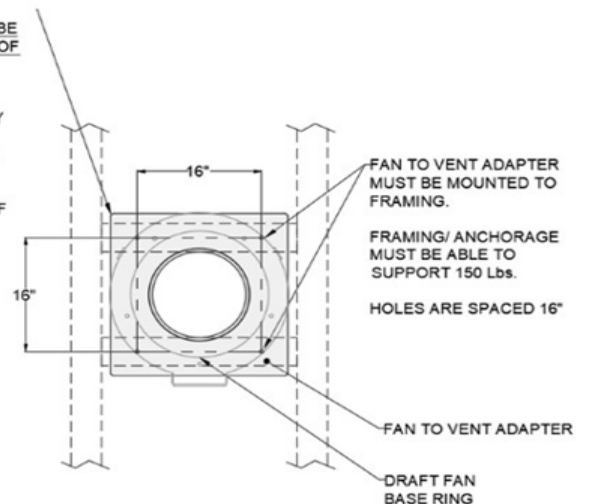
1. The wire sizes shown are typical and may not apply to all jobs. This system must be installed in compliance with NFPA 70, National Electric Code, and/or any local codes.
2. The connections shown are for illustration purposes. Refer to appliance manufacturer documentation for interlock connections.



Horizontal terminations not allowed for solid-fuel applications.

SECURE ADAPTER TO WALL FRAMING. ANCHORAGE MUST BE ABLE TO SUPPORT A MINIMUM OF 150 lbs.

ENSURE THAT ALL WALL PENETRATIONS ARE PROPERLY FLASHED TO PREVENT WATER INTRUSION AND THAT THE FAN ADAPTER IS SEALED TO THE STRUCTURE USING NON-HARDENING WATERPROOF SEALANT.



Technical Data XV 150

Voltage – 120V/1ph/60Hz

Amps – 1.0 A

Weight – 28 Lbs.

Capacity – 450 CFM

XV 250

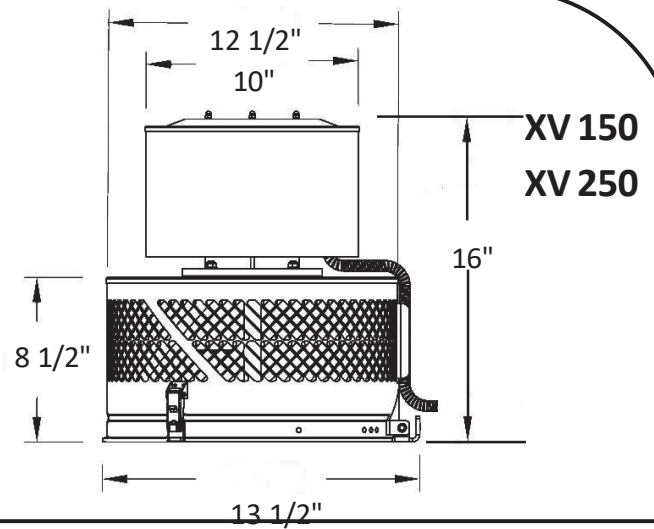
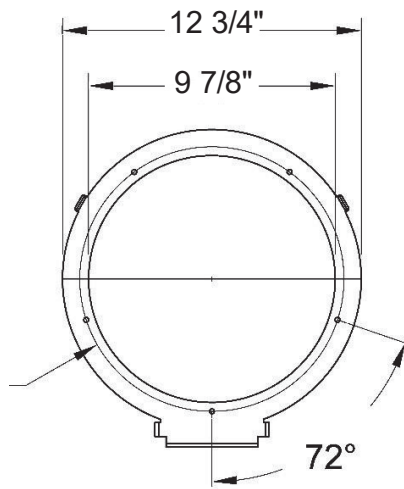
Voltage – 120V/1ph/60Hz

Amps – 1.6 A

Weight – 30 Lbs.

Capacity – 900 CFM

10 7/8"



XV 150
XV 250

Technical Data XV 350

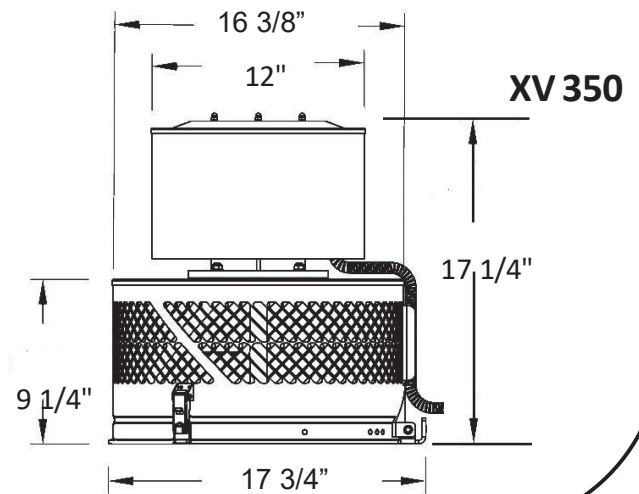
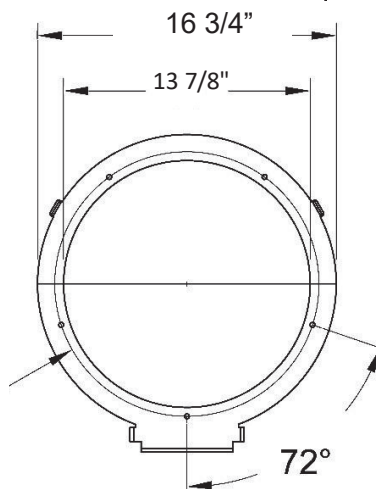
Voltage – 120V/1ph/60Hz

Amps – 3.7 A

Weight – 54 Lbs.

Capacity – 2100 CFM

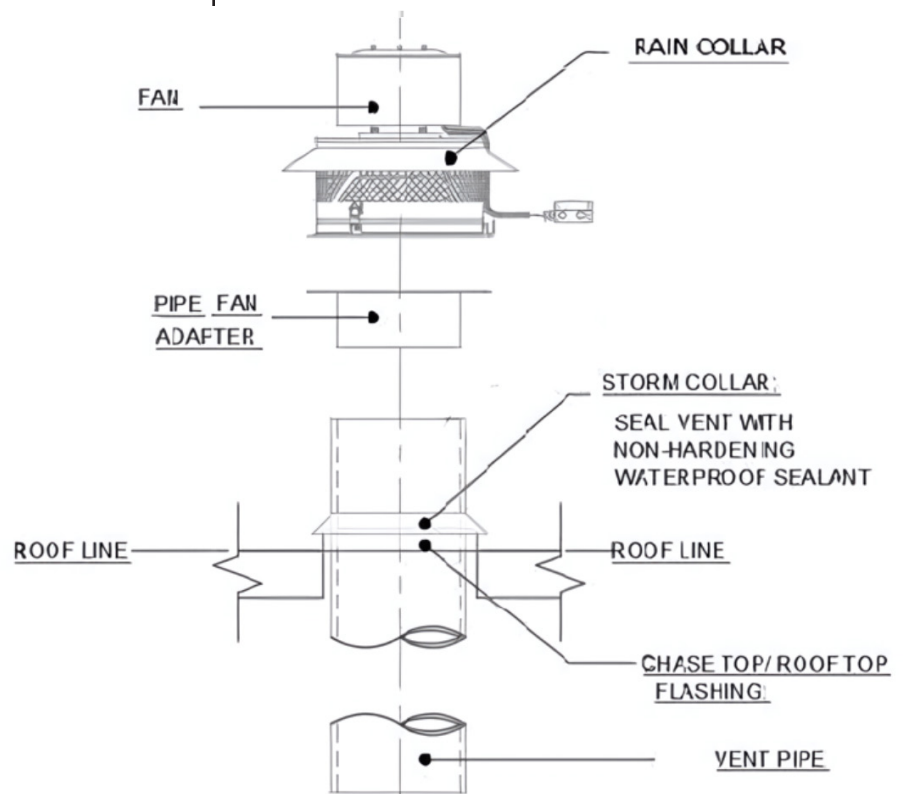
14 3/4"



XV 350



Fan comes with inline disconnect and 30ft. of cable that terminates with a 3-pin Molex connector for a quick connection to the controller.



FAN TROUBLESHOOTING:

Error	Possible Cause	Solution
Chimney fan will not start	Transportation safety devices not removed	Remove cardboard rolls from inside fan
	Incorrect wiring	Check wiring
	Debris inside chimney fan	Clean chimney fan
	No voltage on chimney fan	Check power supply
	Faulty fuse	Change fuse
	Minimum rotation set too low	Set minimum rotation
	Chimney fan overheated	Allow device to cool down
	Faulty capacitor	Replace capacitor
Chimney fan cannot be slowed	Minimum rotation set too high	Set minimum rotation
Humming in the chimney system	Induction humming	Add silicone or neoprene gasket
Vibration in the chimney system	Rotor imbalanced due to debris	Clean rotor
	Increased vibration due to natural resonance	Slightly change rotation. Add vibration absorber

*In case of a malfunction, disconnect the system from power and contact a professional service contractor.

Do not alter or modify the Isokern X-Ventiso sealed control unit under any circumstances. Modification or alteration of the control components may void manufacturer's warranty, listings, and approvals.



For Technical Support, Call 800-642-2920

Earthcore Headquarters | 6899 Philips Industrial Blvd | Jacksonville | Florida | 32256

I. 1-YEAR LIMITED WARRANTY

Earthcore ("X-Ventiso by Earthcore") brand provides a 1-year limited warranty for XV Fans, ZUK Barometric Draft Regulators, GFD dampers, all controls and accessories, and all other variations of Models (collectively, the "Products") for any defect in workmanship or materials under normal use from the date of shipment to the purchaser of Products ("Purchaser"), subject to the following conditions:

- Product sizing and specifications have been performed in accordance with generally accepted standards, meeting all local and national codes.
- Correct installation and maintenance in full compliance with Earthcore's installation and maintenance instructions as published at the time of installation.

II. EXTENDED 2-YEAR LIMITED WARRANTY

Earthcore provides an extended 2-year limited warranty for any defect in workmanship or materials under normal use from the date of shipment to the Purchaser, subject to the satisfaction of the following conditions:

- Availability of a written inspection report from the time of installation, or timely thereafter, by an Earthcore inspector, or an inspector authorized by Earthcore, that the product assembly and installation conformed to all Earthcore's assembly and installation instructions.
- Products were at all times operated and maintained in full compliance with Earthcore's operation and maintenance instructions as published at the time of installation or as later provided to Purchaser by Earthcore.

III. REMEDIES

If a valid Limited Warranty claim arises, Earthcore shall, at its sole discretion, either repair the Product or deliver a properly functioning Product. This Limited Warranty is limited to repair or replacement of the Product plus shipping cost to the location of the defective Product. The Limited Warranty does not cover labor costs for removal or replacement of the defective Product, unless such labor shall be carried out by Earthcore itself at its sole discretion.

IV. FILING OF A LIMITED WARRANTY CLAIM

Limited Warranty claims may only be asserted during the term of the applicable Limited Warranty period. Any extension of the term of the Limited Warranties shall be excluded, regardless of the legal basis. If Purchaser believes that there is a justified Limited Warranty claim, Purchaser shall notify Earthcore to that effect in writing. Any claims stemming from or relating to a Limited Warranty shall be asserted in detail within eight weeks after the discovery of the defect (the time when the notification is received by Earthcore will be the basis for determining whether a claim has been reported within this deadline) or else shall be excluded and not be recognized by Purchaser. Such notification shall include a description of the defect, original proof of purchase, and a copy of the written inspection report as described in Section II above (if applicable).

V. NO OTHER WARRANTY

EXCEPT AS SET FORTH EXPRESSLY THEREIN, EARTHCORE MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, REGARDING THE PRODUCTS, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

VI. DAMAGES DISCLAIMER AND LIMITATION

IN NO EVENT SHALL EARTHCORE BE LIABLE TO ANY CLIENT OR ANY OTHER PERSON FOR ANY (A) INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, INCLUDING LOSS OF PROFIT OR GOODWILL OR (B) DIRECT DAMAGES TO BODY, HEALTH OR PROPERTY FOR ANY MATTER ARISING OUT OF OR RELATING TO THE PRODUCTS, WHETHER SUCH LIABILITY IS ASSERTED ON THE BASIS OF CONTRACT, TORT OR OTHERWISE EVEN IF EARTHCORE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL EARTHCORE'S TOTAL AGGREGATE LIABILITY FOR DAMAGES EXCEED THE GREATER OF THE AMOUNT OF (A) TOTAL COMPENSATION PAID BY PURCHASER TO EARTHCORE FOR THE PRODUCTS, OR (B) PROCEEDS AVAILABLE FROM ANY INSURANCE POLICY IN EFFECT AND APPLICABLE TO THE EVENT GIVING RISE TO SUCH LIABILITY.

VII. NOTICE

Any notice or other communication hereunder to EARTHCORE shall be sent postage prepaid, by certified mail, by courier, or e-mail, to the following: Earthcore, 6899 Philips Industrial Blvd, Jacksonville, FL 32256 or info@isokern.net Notices shall be effective upon receipt.

VIII. TERMS AND CONDITIONS OF SALE

Purchaser's Terms and Conditions of Sale as currently in effect shall govern these Limited Warranties, including without limitation the rights and responsibilities granted hereunder.