

VENTURO LOGIC CONTROLS (-K) SYSTEM MANUAL

Included in this manual:

VENTURO LOGIC CONTROLS (VLC-K)

 Venturo Logic Controls (VLC)[™] system provides safe crane operations, allowing more control of capacities throughout the load operation.

VENCO VENTURO INDUSTRIES LLC 12110 BEST PLACE | CINCINNATI, OHIO 45241

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VLC-K SYSTEM INST-32000 - 9/21/2023 (Rev: NEW)

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32006 32007

32005 12-00073_VNT1

Dear Venturo VLC Purchaser,

Thank You!

Thank you for your purchase of the Venturo Logic Controls (VLC) Crane. This crane was carefully engineered to provide excellent performance when properly installed, operated and maintained.

Please read all pertinent manuals entirely prior to installing and operating the equipment. Our manuals instruct you how to safely and easily install, set up and operate your crane. Please be sure that you, and any other person who will operate the crane, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

The information in our manuals relate to the most recent product information available at the time of printing. Review all manuals for proper installation and to familiarize yourself with the crane's features and operations. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

If you have any problems or questions, please call Venco Venturo Industries LLC directly. We want to ensure your complete satisfaction at all times.

Sincerely,

Venco Venturo Industries LLC

Record Product Information

Before installing, setting up and operating your new crane, please locate the serial plate on the crane and record the information provided to the right. This information is helpful when seeking technical support assistance. Typical locations for serial plates are on either side of the mechanism near the main boom pivot.

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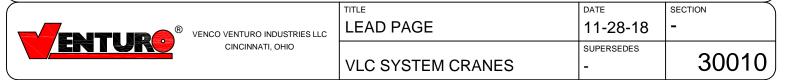
Serial Number:

Product Registration and Customer Support

Please register your product on our website, www.venturo.com/warranty-policy/.

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this crane, you can seek help from our expert customer support. Choose from the options below:

- Visit us on the web at www.venturo.com
 - O Download our manuals at www.venturo.com/owner-manuals/
- > Call a Customer Support Representative or Technical Support at (800) 226-2238
- Locate the nearest Venturo Distributor in your area (800) 226-2238 or info@venturo.com



GENERAL INFORMATION VLC-K SYSTEM, OWNER'S MANUAL

The Venturo Logic Controls (VLC)™ system facilitates safe crane operation, allowing more control of load during operation. Features include overload protection, wireless or wired communication, and detailed system information using the following components:



Transmitter - hand-held crane controller with information display

- Part Number: 23908-TXOver 20 hours of battery life
 - 12V Charger: 23908-CHG (Included)110V Wall Charger: 23908-ADP (Not Included)
 - Replacement Battery: 23908-BAT
- Full color graphic OLED display
- [7] 2-way momentary toggle switches and [1] momentary push button
- Emergency stop
- Trigger for proportional control
- Wireless or Wired operation (via 25' CAN Cable)
 - •• 25' CAN Cable: 23908-CAN (Included)
- · Magnet for storage
- 900 MHz radio frequency



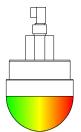
Receiver - receives control signals from and sends information to the transmitter

- Part Number: 23908-RX
- Location: Crane housing
- Potted electronics
- LED diagnostic indicators
- CAN cable connection
- · Compact and lightweight



Inclinometer - detects boom angle

- Part Number: 23908-INC
- Location: Underneath boom near Elevation Cylinder and Tri-color LED Warning Light



Tri-Color LED Warning Light - provides information using three colors

- Part No.: 23438
- Location: Underneath boom near Elevation Cylinder and Inclinometer



Pressure Transducers - measure pressure in the elevation cylinder

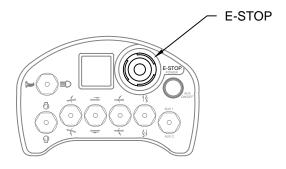
- Part No.: 23908-PTD
- Location 1: Elevation Cylinder pressure port
- Location 2: Housing interior

ENTURO®	VENCO VENTURO INDUSTRIES LLC CINCINNATI. OHIO	GENERAL INFORMATION	09-19-23	-	-
		VLC-K SYSTEM	-	32001	$\Big $

QUICK START GUIDE VLC-K SYSTEM, OWNER'S MANUAL

TURN ON THE VLC SYSTEM

- Turn the crane power ON this will power up the Receiver (RX).
- Rotate the E-STOP clockwise to turn ON the transmitter (TX).
- Note: Push E-STOP to turn OFF the transmitter and stop the crane.



PAIR (TEACH) BY CAN CABLE

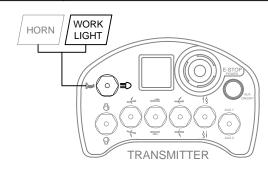
 Plug the CAN cable into the CAN port on both the receiver and transmitter and operate a function on the transmitter for at least 5 seconds. The units will be synchronized at this point.

PAIR (TEACH) BY RF

- 1. Turn the transmitter and receiver off.
- 2. Press and hold the AUX ON/OFF button then release the E-STOP. Keep holding the AUX button for >10 seconds until the menu appears then release.
- Scroll up and down using the AUX 1 and AUX 2 toggles. To select an option press the AUX ON/OFF button.
- 4. Select TEACH MODE from the menu.
- Apply power to the receiver. The screen will display if successful.

WORK LIGHT CONTROL

- If your crane is equipped with the optional boom-tip work light, turn it ON by pressing the horn/light toggle to the right.
- Light will remain ON until toggle is pressed right again.



BATTERY CHARGING

The battery can be charged by attaching the DC charger to the Transmitter and plugging it into the vehicle's auxiliary power outlet OR by connecting the CAN cable from the receiver module (powered on) to the port on the Transmitter. An optional AC wall charger is also available.

LED indicators on the right side of the transmitter indicate the status of the charger:

- RED charging
- GREEN fully charged

NOTE: When charging, batteries will reach 90-95% charge before switching to slow charge. Green LED will only display once batteries reach 100%

SLEEP TIME

To save battery life, the transmitter will turn off after 15 minutes if the receiver is off. Press (Push IN) and release (Rotate Clockwise) E-STOP to restore transmitter operation.

IMPORTANT BATTERY INFO

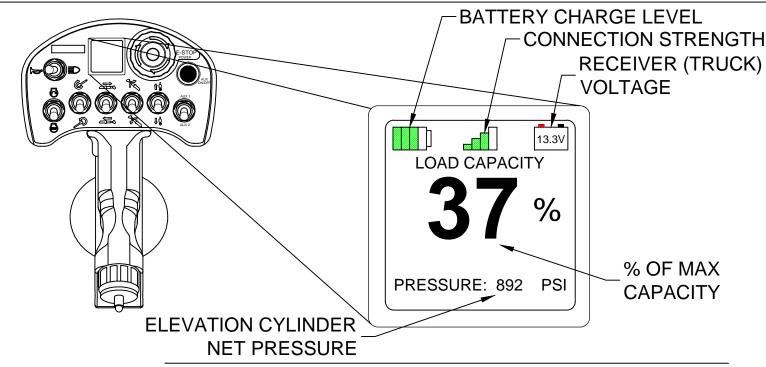
The temperature that the transmitter battery is exposed to affects performance and useful life. It is strongly recommended you keep within the following limits:

- Charging and Storing: -4 to +86°F
- Operating: -20 to +122°F

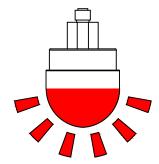
NEED HELP? PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238



SYSTEM MESSAGES

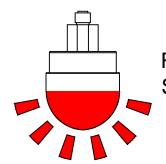




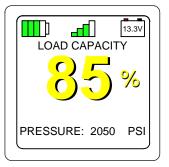


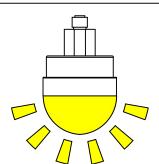
RED FLASHING ANTI-TWO-BLOCK CONDITION





RED SOLID OVERLOAD (MAX CAPACITY) CONDITION





YELLOW FLASHING

NEAR-OVERLOAD (80-100% CAPACITY) CONDITION

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	TITLE	DATE	SECTION
;	SYSTEM MESSAGES	09-19-23	-
	VLC-K SYSTEM	SUPERSEDES -	32008

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

OPERATION GUIDE, 1/4

WARNING

- FAILURE TO FOLLOW OPERATING, MAINTENANCE, OR SAFETY INSTRUCTIONS CAN RESULT IN DEATH OR SERIOUS INJURY.
- VENTURO CRANE OPERATORS MUST CONFORM TO QUALIFICATIONS SPECIFIED IN ANSI B30.5 CHAPTER 5-3 OPERATION. TRAINEES OR UNTRAINED PERSONS SHALL BE UNDER THE DIRECT SUPERVISION OF QUALIFIED PERSONS.

NOTE: A copy of this manual is provided with every VLC crane, and shall remain with the crane at all times. The operation section provides guidelines to the safe and proper use of the crane - it is not intended to be used as training material.

! PLEASE READ & UNDERSTAND THE VENTURO CRANE SAFETY MANUAL BEFORE OPERATING THIS EQUIPMENT !

PRE-OPERATION INSPECTION

Before operating the equipment, make sure regular maintenance has been completed, and check the following:

Standard vehicle checks Condition of lifting devices

Parking Brake operation Switches

Hydraulic reservoir level Harnesses

Hoses / Gearboxes for leaks Anti-two block for operation

Decal legibility / placement Wire rope

Condition of crane controls Safety guards

Replace/repair as necessary before operation. Please refer to the VENTURO Safety Manual for the detailed crane checklist.

PLANNING

Plan the lift by completely understanding the equipment, the work site, and the load(s) before positioning the vehicle. Below are some helpful suggestions for job site setup:

- Make sure all pre-operation inspections are completed
- Vehicle positioned on firm level ground as close to the job as possible, or
 - Vehicle parked with the grade as close to the job as possible use wheel chocks
 - Cross-grade parking will require decreasing load capacity to prevent tipping
- Vehicle positioned in area free from bystanders and overhead obstructions
- Walk around the vehicle and identify any possible areas that may have limited visibility
- Follow OSHA guidelines for barricading the crane's swing radius
- Know where to make pickups, lifts, and turns
- Know where to place the load before it is lifted
- Warn personnel before starting
- Be alert! Do not eat, drink, or use your phone while operating the equipment
- Obey all rules, laws, and regulations

The following section contains instructions regarding the safe operation of VENTURO manufactured telescopic cranes and should be read and completely understood by persons working with or near the crane before putting the unit into operation.



OPERATION GUIDE	11-28-18	SECTION -
VLC SYSTEM	SUPERSEDES -	30006

OPERATION GUIDE, 2/4

! PLEASE READ & UNDERSTAND THE VENTURO CRANE SAFETY MANUAL BEFORE OPERATING THIS EQUIPMENT!

- 1. DISENGAGE DRIVE AXLE / SET PARKING BRAKE
- a. The drive axle must be disengaged and the parking brake must be set before operating any of the equipment.
- 2. ENGAGE HYDRAULIC POWER SOURCE
- a. Transmission must be in neutral/park
- b. Engage PTO, and allow system to warm up before operating equipment.
- 3. CHECK SELECTOR VALVE
- a. Handle should be in the position where outrigger / stabilizer circuit is selected.
- 4. POSITION OUTRIGGERS / STABILIZERS
- a. Remove all security pins from each outrigger / stabilizer.
- b. Using the control levers completely extend the rear outriggers out, and the stabilizers down.
- c. Using the control levers completely extend the front outriggers out, and the stabilizers down.



WARNING



- MAINTAIN SAFE DISTANCE FROM OUTRIGGER / STABILIZER LEGS DURING OPERATION.
- DO NOT RAISE VEHICLE TIRES OFF THE GROUND. CONFIRM OUTRIGGER / STABILIZER LEGS ARE POSITIONED ON FIRM LEVEL GROUND, AND VEHICLE IS AS LEVEL AS POSSIBLE.
- 5. TURN ON MASTER DISCONNECT SWITCH
- a. Find the mounting bracket inside the compartment underneath the crane.
- b. On the lower right side of the bracket, flip the master switch to 'ON'.
- 6. CHANGE SELECTOR VALVE
- a. Move handle to the position where the crane circuit is selected.
- 7. POWER UP THE VLC SYSTEM
- a. On the right side of the crane's mechanism, check the receiver's LED activity light.
- b. Power on the transmitter.
- c. Check the receiver's diagnostic LED for nominal activity.
- d. Check transmitter's display for home screen.

	VENCO VENTURO INDUSTRIES LLC	OPERATION GUIDE	05-09-23A	SECTION Y		
EN	IUN	CINCINNATI, OHIO	VLC SYSTEM	SUPERSEDES 11-28-18	30007	

OPERATION GUIDE, 3/4

! PLEASE READ & UNDERSTAND THE VENTURO CRANE SAFETY MANUAL BEFORE OPERATING THIS EQUIPMENT !

- 8. UNSTOW THE CRANE
- a. Winch down slightly.
- b. Raise the boom so it clears the boom rest and any other obstruction(s).
- c. Rotate the crane to the side of the vehicle so there is enough clearance to perform the next step.
- d. Winch down enough to release the load block from its stowed position.
- 9. ATTACHING THE LOAD
- a. Determine whether 1-part line or 2-part line lifting will be used, and adjust load block if necessary.
- b. Position the crane so that the load block is directly over the center of the load.
- c. Attach the load to the hook by means of slings or other approved devices.



WARNING



- NEVER USE ANYTHING LARGER THAN THE HOOK THROAT THAT PREVENTS SAFETY LATCH FROM CLOSING.
- DO NOT WRAP WIRE ROPE AROUND LOAD.
- NEVER EXCEED MANUFACTURER'S CAPACITY CHARTS AND RATINGS.
- d. Maintain a minimum of 5 full wraps of wire rope on the winch drum at all times.
- 10. LIFTING THE LOAD
- a. Lift the load slightly off the ground to check the safety of the cargo.
 - ! DO NOT ATTEMPT TO LIFT FIXED LOADS!
- 11. MOVING THE LOAD
- a. Ensure the stability of the crane and load before moving the load.



WARNING



- NEVER OPERATE THE CRANE WITH PERSONNEL UNDER ANY PART OF THE BOOM OR LOAD.
- DO NOT EXTEND OR ROTATE A LOAD OVER ANYONE.

VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

- NEVER ALLOW PERSONNEL TO PLACE THEMSELVES UNDER ANY PART OF THE BOOM OR LOAD.
- NEVER LEAVE A CRANE LOAD SUSPENDED OR UNATTENDED.
- b. Be alert! Always look for changes in the surroundings of your job site.
- c. Avoid sudden starts and stops.
- d. Do not use boom to push downward onto anything.
- e. Do not use boom or winch to drag a load.

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TITLE	DATE	SECTION
OPERATION GUIDE	11-28-18	-
	SUPERSEDES	00000
VLC SYSTEM	-	30008

OPERATION GUIDE, 4/4

! PLEASE READ & UNDERSTAND THE VENTURO CRANE SAFETY MANUAL BEFORE OPERATING THIS EQUIPMENT !

- 12. STOW THE CRANE
- a. Completely retract the boom extensions.
- b. Rotate crane to a position that allows you access to the boom tip.
- c. Winch up to bring load block within proper distance of stow hook.
- d. Lower boom to where load block is within comfortable reach.
- e. Hook load block to stow hook under the main boom.



WARNING



- MAINTAIN CONTROL OF LOAD BLOCK TO AVOID PERSONAL INJURY OR DAMAGE TO EQUIPMENT.
- NEVER USE THE STOW HOOK FOR ANYTHING OTHER THAN STOWING THE LOAD BLOCK.
- f. Slowly winch up to remove some of the slack leading to the load block. **Do Not Tighten Wire Rope & Avoid activating the Anti-Two System.**
- g. Raise the boom so it clears the boom rest and any other obstruction(s).
- h. Rotate the crane to where the center of the boom is directly over the center of the boom rest. *Maintain* <u>some</u> <u>slack</u> in the wire rope while lowering the boom into the boom rest to avoid over tightening & damaging the wire rope.
- i. Gradually lower the boom until it rests gently onto the cradle of the boom rest. Stop Boom Down once contact is made with the boom rest to avoid damaging the service body.
- 13. POWER DOWN THE CRANE
- a. Hit the E-STOP button on the transmitter.
- b. Charge and stow transmitter.
- c. Locate the mounting bracket inside the compartment underneath the crane.
- d. On the lower right side of the bracket, flip the master switch to 'OFF'.
- 14. STOW OUTRIGGERS / STABILIZERS
- a. Change selector valve handle to the position where outrigger / stabilizer circuit is selected.
- b. Using the control levers (locations may vary), completely retract the rear outriggers / stabilizers.
- d. Using the control levers (locations may vary), completely retract the front outriggers / stabilizers.
- e. Reattach all security pins
- 15. DISENGAGE HYDRAULIC POWER SOURCE / PARKING BRAKE
- a. Disengage PTO.
- b. Release parking brake.



WARNING



• BEFORE MOVING THE VEHICLE, DISSIPATE ALL OTHER PERTINENT POWER SOURCES.



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VLC SYSTEM	12-04-20A	30009

USER SETTINGS VLC-K SYSTEM, OWNER'S MANUAL

USER SETTINGS OVERVIEW:

- The VLC-K system has several user-configurable settings:
 - Stability Test Enabled or Disabled
 - AUX ON/OFF Latching Enabled or Disabled (Momentary)
 - AUX 1 Latching Enabled or Disabled (Momentary)
 - AUX 2 Latching Enabled or Disabled (Momentary)

STABILITY TEST MODE:

- The Stability Test Mode is intended to be used only by the equipment upfitter that installs the crane and only for the purpose of evaluating the overall stability of the installation
- When Enabled (box checked), the crane will be able to reach 118% of the maximum rated capacity
- · This mode is automatically Disabled when the receiver is powered off



LATCHING ENABLED:

- When latching is Enabled (box checked), the specified AUX function will latch on and stay on until the same AUX function is selected again (at which point it will turn off)
- When latching is Disabled (box unchecked), the specified AUX function will only be energized for as long as the switch
 or button is actuated

ACCESSING USER SETTINGS MENU:

- User Settings are configurable using a browser (Chrome is recommended) on your laptop or smart phone
- Use WiFi to connect to "VENTURO3B306", the Receiver Gate
- Enter "3B3063X1" when prompted for a password
- Once connected to the Receiver Gate, open your internet browser and use the address 192.168.1.1
- You should now see the "Main Screen" (home menu)



- Click on "USER SETTINGS" button
- Set the options as desired by checking the boxes, then click the "Save" button

AUX Outputs Latch Enable:

AUX ON/OFF
AUX1
AUX2
Stability Test:

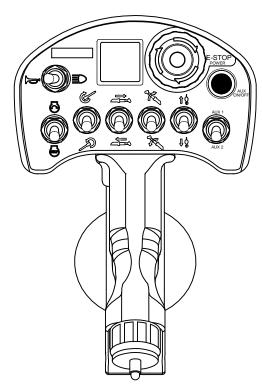
User Settings

ENTURO VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	DATE	SECTION
	USER SETTINGS	09-19-23	-
		SUPERSEDES	00000
	VLC-K SYSTEM	-	32009

MAINTENANCE

The VLC-K Venturo Logic Controls system requires only minimal maintenance:

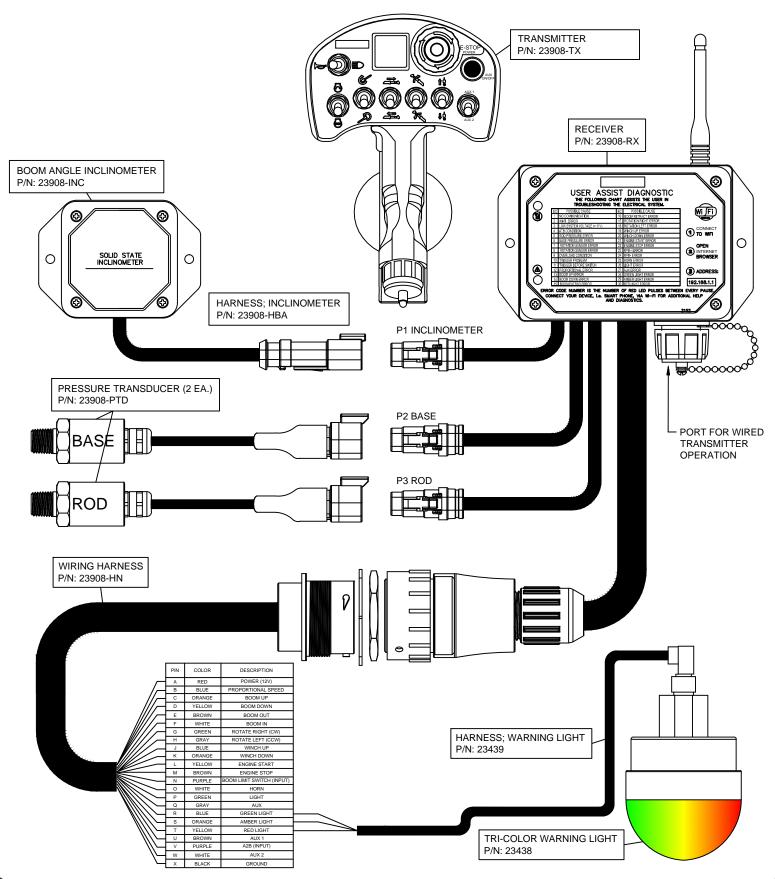
- Make sure that transmitter is OFF and that both the crane master power and crane hydraulics are OFF
- Clean transmitter housing as-needed with a damp cloth and mild detergent (e.g. dish soap)
- Clean trigger control by blowing air around the trigger area to remove debris; use light machine oil at trigger pivot
- Inspect switches and connector for looseness; tighten as necessary



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TITLE	DATE	SECTION
MAINTENANCE	07-25-23	-
VLC-K SYSTEM	SUPERSEDES -	32010

WIRING & SYSTEM DIAGRAM VLC-K SYSTEM, OWNER'S MANUAL





VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO

WIRING & SYSTEM DIAG.

VLC-K SYSTEM

DATE SECTION - -

SUPERSEDES 32003

REPLACEMENT PARTS & ACCESSORIES VLC-K SYSTEM, OWNER'S MANUAL

VLC-K SYSTEM INCLUDED COMPONENTS & REPLACEMENT PART NUMBERS:

#	QTY	PART NO.	DESCRIPTION
1	1	23908-TX	RADIO TRANSMITTER (900 MHZ) (INCLUDES BATTERY)
2	1	23908-RX	RADIO RECEIVER W/ ANTENNA (900 MHZ, POTTED)
3	2	23908-PTD	PRESSURE TRANSDUCER (4-20 mA / 0-5000 psi)
4	1	23908-INC	INCLINOMETER
5	1	23908-HBA	HARNESS - BOOM ANGLE TRANSDUCER KIT
6	1	23908-HN	HARNESS - CRANE MECHANISM
7	1	23908-CAN	CAN CABLE - 25 FT
8	1	23908-CHG	CHARGER - 12 V - VEHICLE LIGHTER/AUX PLUG
9	1	23438	TRI-COLOR LED WARNING LIGHT
10	1	23439	HARNESS, TRI-COLOR LED WARNING LIGHT
11	1	23731	PARKER SEAL-LOK ORFS TEE FITTING P/N 6R6LO-S (6 MORFS x 6 FORFS SWIVEL x 6 MORFS BRANCH)
12	1	23910	PARKER SEAL-LOK ADAPTER P/N #6 G6L-S (6 FORFS SWIVEL X 4 FP) - BRANCH OF TEE TO PRESSURE TRANSDUCER
13	1	H6805-0404	ELBOW FITTING - 4 MORB SWIVEL x 4 FP - ELEV CYL BASE END
14	1	23258	WIRE HARNESS ASSY, COIL GROUNDS, HYD CONTROL VALVE ASSY
16	1	24185	"DO NOT PRESSURE WASH" DECAL

ADDITIONAL ACCESSORIES & REPLACEMENT PARTS (NOT INCLUDED)

#	VENTURO P/N	DESCRIPTION
2	23908-ADP	AC ADAPTER - 110 V WALL CHARGER
3	23908-BAT	BATTERY - TX

ENTURO VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TITLE	DATE	SECTION)	
	REP. PARTS & ACC.	12-07-22	-		
		SUPERSEDES	00004	1	
		VLC-K SYSTEM	-	32004	

VLC-K TROUBLESHOOTING GUIDE

CONDITION: WILL NOT OPERATE				
PROBABLE CAUSES		SOLUTION(S)		
E-STOP ENGAGED		RELEASE E-STOP BUTTON BY ROTATING CLOCKWISE		
	1	RESTABLISH COMMUNICATION		
LOCT COMMUNICATION		- WALK TOWARD RECEIVER / CRANE		
LOST COMMUNICATION		- WATCH FOR NORMAL OPERATING SCREEN		
	2	TURN TRANSMITTER OFF THEN ON TO REESTABLISH CONTACT		
	1	CHECK WIRING HARNESS, PIN A (RED) FOR +12V		
	2	TRACE & CHECK SUPPLY TO TERMINAL BLOCK (RED)		
	3	CHECK TERMINAL BLOCK CONNECTION TO CIRCUIT BREAKER <cb></cb>		
NO POWER - RECEIVER	4	CHECK CONNECTION FROM <cb> TO MASTER DISCONNECT</cb>		
	5	CHECK WIRING HARNESS, PIN X (BLACK) FOR GROUND		
	6	TRACE & CHECK GROUND TO TERMINAL BLOCK		
	7	TRACE & CHECK GROUND CONNECTIONS FROM TERMINAL BLOCK		
	CH	IECK TRANSMITTER BATTERY LEVEL & CHARGE AS NEEDED		
NO POWER - TRANSMITTER	РΑ	IR TRANSMITTER AND RECEIVER		
		SEE PAGE 32002 FOR PAIRING PROCEDURE		

NEED HELP? PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238



TITLE	DATE	SECTION
TROUBLESHOOTING GUIDE	07-14-23	-
VLC-K SYSTEMS	SUPERSEDES -	32006

VLC TROUBLESHOOTING GUIDE

CONDITION: ATB (AN	TI-2-BLOCK) ERROR
PROBABLE CAUSES	SOLUTION(S)
A2B SENSOR ACTUATED	1 LOWER THE LOAD AWAY FROM BOOM HEAD (WINCH DOWN, BOOM IN, OR BOOM UP)

CONDITION: YELLOW	LIGHT ILLUMINATED
PROBABLE CAUSES	SOLUTION(S)
CRANE IS OPERATING AT 80% OR GREATER OF ITS MAX CAPACITY	THIS ALERT IS TO MAKE OPERATOR AWARE THAT CRANE IS APPROACHING ITS MAXIMUM CAPACITY; THE CRANE WILL CONTINUE TO OPERATE NORMALLY
	2 IF YOU WISH TO OPERATE BELOW THE 80% THRESHOLD:
	◆ WINCH DOWN AND REDUCE THE LOAD (WINCH DOWN)
	◆ INCREASE BOOM ANGLE (BOOM UP)
	◆ RETRACT BOOM (BOOM IN)

CONDITION: OVERLO	AD ERROR / RED LIGHT ILLUMINATED
PROBABLE CAUSES	SOLUTION(S)
	ONLY WINCH DOWN, BOOM UP, BOOM IN, AND ROTATION WILL 1 FUNCTION; WINCH UP, BOOM DOWN, AND BOOM OUT WILL BE DISABLED
CRANE IS OPERATING AT OVER 100% OF ITS MAX CAPACITY	2 TO RESTORE NORMAL CRANE FUNCTION:
	♦ WINCH DOWN AND REDUCE THE LOAD (WINCH DOWN)
	◆ INCREASE BOOM ANGLE (BOOM UP)
	◆ RETRACT BOOM (BOOM IN)

NEED HELP? PLEASE CALL TECHNICAL SUPPORT AT 1-800-226-2238

	ENTURO® VENCO VENTURO INDUSTRIES LLC CINCINNATI, OHIO	TROUBLESHOOTING GUIDE	07-14-23	SECTION \	
		VLC-K SYSTEMS	SUPERSEDES -	32007	

TROUBLESHOOTING; ERROR CODES VLC-K SYSTEM, OWNER'S MANUAL

ERROR CODES INDICATED BY FLASHING RED LED ON RECEIVER MODULE. ERROR CODES ALSO VIEWABLE ON HISTOGRAM PAGE ON GATE.

VLC-K ERROR CODES						
EC	ERROR CODE EXPLANATION	POSSIBLE CAUSES				
1	RF COMMUNICATION PROBLEM	TRANSMITTER IS OFF				
		TRANSMITTER WENT TO SLEEP MODE				
		INTERFERENCE IN RF COMMUNICATION LINK				
2	LOW INPUT VOLTAGE (<11V)	SYSTEM VOLTAGE IS BELOW 11V (12V SYSTEM)				
3	-	-				
4	PRESSURE 1 ERROR	NO CURRENT OR TOO MUCH CURRENT (>20mA) READ AT PRESSURE TRANSDUCER				
5	PRESSURE 2 ERROR					
6	OVERLOAD ERROR	OVERLOAD CONDITION PRESENT				
7	A2B ERROR	ANTI-TWO BLOCK CONDITION PRESENT, A2B INPUT LOW				
8	BOOM UP LIMIT ERROR	BOOM UP LIMIT ACTIVE, BOOM LIMIT INPUT LOW				
9	BOOM SENSOR ERROR	NO CAN MESSAGES BEING RECEIVED FROM BOOM SENSOR				
10	-	-				
11	PROP. OUTPUT ERROR					
12	BOOM UP OUTPUT ERROR					
13	BOOM DOWN OUTPUT ERROR					
14	BOOM OUT OUTPUT ERROR					
15	BOOM IN OUTPUT ERROR					
16	ROTATE CW OUTPUT ERROR					
17	ROTATE CCW OUTPUT ERROR					
18	WINCH UP OUTPUT ERROR					
19	WINCH DOWN OUTPUT ERROR	SHORT OR OPEN LOAD/COIL ON OUTPUT				
20	ENGINE START OUTPUT ERROR	oner or er er es				
21	ENGINE STOP OUTPUT ERROR					
22	HORN OUTPUT ERROR					
23	LIGHT OUTPUT ERROR					
24	AUX OUTPUT ERROR					
25	GREEN LIGHT OUTPUT ERROR					
26	AMBER LIGHT OUTPUT ERROR					
27	RED LIGHT OUTPUT ERROR					
28	TRIGGER INPUT ERROR	NO VOLTAGE PRESENT ON TRIGGER IN TX				
29	TRIGGER BEFORE SWITCH ERROR	TRIGGER PULLED ON TX BEFORE SWITCH WAS ACTIVE				

	VENCO VENTURO INDUSTRIES LLC	ERROR CODES	12-08-22	SECTION \
ENTURO	CINCINNATI, OHIO	VLC-K SYSTEM	SUPERSEDES -	32005

VENTURO CRANES LIMITED WARRANTY POLICY



Venturo products are built to last...we guarantee them.

As a purchaser of any new Venturo product covered by warranty, you will receive 1 year of the most complete coverage available...and, at no added cost to you.

1-Year Limited Warranty Policy

This limited policy warrants new products of Venturo to be free from defects in material and workmanship for a period of one (1) year from date of original installation. OEM products or accessories purchased by Venturo as part of or offered with our product will carry the OEM manufacturer's respective warranty. Our warranty covers:

- Repair or replacement of product
- Labor to repair or replace product
- Freight to return and/or replace product

We shall not be liable for any contingent liabilities arising out of the improper function of any products. Warranty shall become void if the product is improperly installed, modified, damaged, abused or used for application other than intended use. There is no warranty of merchantability, fitness for a particular purpose, warranty arising from course of dealing or usage of trade, or any other implied or expressed warranty, except as made specifically herein. This warranty supersedes all previous warranties, written or implied.

Warranty Claims

Venco Venturo Industries LLC will make a good faith effort for prompt correction or other adjustment with respect to any product, which proves to be defective after our inspection and within the warranty period. Before any repairs are attempted or before returning any product, your Venturo Distributor is required to obtain a warranty claim number. This number is necessary for any claim to be considered. To obtain a warranty claim number, Venturo requires the model and serial number. Only authorized Venturo Distributors can perform warranty. For the name and address of your local Venturo Distributor call the **Warranty Claim Department - 513-772-8448.**

WARNING - It is the responsibility of the installer to ensure the installation is completed according to the manufacturer's recommendations, ensure the ultimate user understands how to operate product in a safe manner, and understands the need for regular service and maintenance by an authorized Venturo Distributor. No modifications or alterations may be made to any Venturo product without the expressed written consent of Venco Venturo Industries LLC. Installation of any Venturo product must be done by an authorized Venturo Distributor, to the standards of the industry; including maintenance, service and affixing of all instruction, safety and warning decals. Users should be instructed as to the safe operation at time of delivery. Maintenance, service, operation and safety warning decals are available on request from Venco Venturo Industries LLC.

VENCO VENTURO INDUSTRIES LLC

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