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PI-P-4400-3254 PALLET INVERTER

OPERATION AND MAINTENANCE MANUAL

Receiving instructions:

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. **If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading**. If the product is undamaged, discard the packaging.

NOTES:

1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is *used* is exclusively the responsibility of the owner/end-user.

2) VESTIL is **not liable** for any injury or property damage that occurs as a consequence of failing to apply either: a) Instructions in this manual; or b) Information provided on labels affixed to the product. Neither is Vestil responsible for *any* consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product.

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PRODUCT INTRODUCTION

Thank you for purchasing Portable Pallet Inverter ("PI-P-4400-3254," "portable pallet inverter" "truck," or "unit") offered by Vestil Manufacturing Corporation (" Vestil"). Our pallet inverter is a durable & high-quality product that combine safety features and low-maintenance mechanisms. Despite the product's relatively sim ple mechanics, all personnel must familiarize themselves with the safe operation instru ctions provided in this manual.

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our electric pallet trucks with safe operation and maintenance procedures. **Employers are responsible for instructing employees to use the product properly. Employees and any other persons, who might foreseeably use, repair, or perform maintenance on the pallet inverter must read and understand every instruction BEFORE using the device. Pallet inverter operators should have access to the manual at all times** and should review the directions before each use. **Contact Vestil for answers to any question you have after reading the entire manual.**

Although Vestil diligently strives to identify foreseeable hazardous situations, this manual cannot address every conceivable danger. The end-user is ultimately responsible for exercising sound judgment at all times.

SAFETY PRINCIPLES

We offer one type of pallet inverter (PI-P-4400-3254): 3,000 pound (~1361kg) capacity models. Each unit conforms to the generalized specifications disclosed in this manual and fulfills our demanding standards for quality, safety and durability.

Vestil Manufacturing Corp. recognizes the critical importance of workplace safety. Each person who **might** participate in operation or maintenance of the product must read this manual. **Read the entire manual and fully understand the directions BEFORE using or performing maintenance on the pallet inverter. If you do not understand an instruction, contact Vestil for clarification. Failure to adhere to the directions in this manual might lead to serious personal injury or even death.**

Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the safe operation and maintenance procedures explained in this manual or that appear on labels affixed to the product. Furthermore, failure to exercise good judgment and common sense may result in property damage, serious personal injury, or death, and also are **not the responsibility of Vestil**.

This manual applies the hazard identification methods suggested for instruction manuals by the American National Standards Institute (ANSI). In accordance with ANSI guidelines for hazard identification language, this manual classifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen indicates the seriousness of that hazard according to the following convention:

DANGER **Identifies a hazardous situation which, if not avoided, WILL result in DEATH or SERIOUS INJURY. Use of this signal word is limited to the most extreme situations.**

WARNING **Identifies a hazardous situation which, if not avoided, COULD result in DEATH or SERIOUS INJURY.**

CAUTION **Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.**

NOTICE Identifies practices not related to personal injury, such as operation that could damage the cart. No safety alert symbol (equilateral triangle enclosing an exclamation point) accompanies this signal word.

SAFETY GUIDELINES

Failure to read and understand the instructions included in this manual before using or servicing the pallet truck constitutes misuse of the product. **Study the entire manual before you use the truck for the first time and before each subsequent use**. Read the manual to refresh your understanding of the safe use and maintenance procedures. If questions remain after you finish reading the manual, contact Vestil for answers. DO NOT attempt to resolve any problem with the truck unless you are *certain* that it will be safe to use afterwards.

DANGER To decrease the risk of electrocution:

- DO NOT *contact* or *operate* the truck *close to* electrified wires or other sources of electricity;
- Before operating the PI-P, always inspect the area where you will use it.

WARNING Improper use might result in serious personal injuries to the operator and/or bystanders. To minimize the possibility of injury, ALL persons who might operate, perform maintenance on, or service the PPI-150 must read, understand and apply the following instructions:

- DO NOT operate the PPI-150 unless and until you are:
  1. Trained to use the machine; AND
  2. Certified as a trained operator by your employer in accordance with U.S. OSHA regulations (29 CFR §1910.178) and any standards incorporated by reference (e.g. ANSI/ITSDF B56.1-2005).
- **DO NOT attempt to lift or transport loads that exceed the rated capacity**.
- Inspect the machine before each use; DO NOT use the stacker unless it is in normal condition. Normal operating condition exists if the pallet inverter passes the inspection and functions tests.
- DO NOT use the unit until you read and understand the entire owner's manual. Review the manual before each use AND before performing maintenance on the device.
- DO NOT use the inverter if the load-supporting elements sustain any structural damage. Structural elements include, but are not limited to, the forks, carriage, and wheels. If structural damage is present, immediately tag the unit "Out of Service" and inform maintenance personnel of the problem.
- DO NOT use the inverter if it makes unusual noises during operation.
- DO NOT allow people to ride on the inverter. Only the operator of PPI-150 equipped with a properly installed rider platform.
- DO NOT attempt to lift an unevenly distributed load. Always center and evenly distribute the load on the forks.
- DO NOT operate the PI-P on ramps or grades. Counter-Balance stacker is desigend for "0" incline.
- DO NOT leave the inverter unattended while it supports a load. Always fully lower the forks, and then completely disengage the skid or pallet. Complete the parking / storing procedure described in "Storing the PPI-150".
- DO NOT modify the inverter without first receiving written authorization from Vestil. Unauthorized modifications may make the PI-P unsafe to use.

NOTICE To maximize the service life of the inverter and to prevent damage:

- Always store the machine in a secure, dry location where it will not interfere with traffic or other activities.
- Maintain the product as suggested in "Maintenance & Inspections".

REMOVING THE Coounter-Balance Stacker FROM THE SHIPPING PALLET:

The inverter is shipped in ready-to-use condition. However, it must first be removed from the shipping pallet before it can be used for the first time.

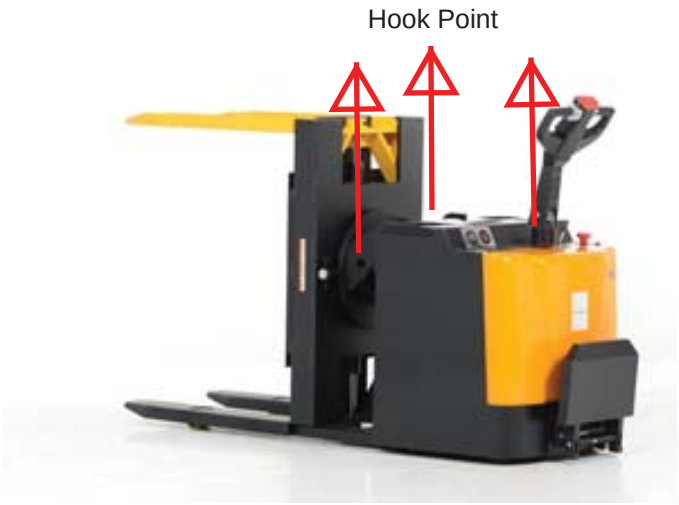
WARNING DO NOT attempt to drive the pallet inverter off of the pallet; it might tip over and cause bodily injuries or property damage. To minimize the risk of injury to yourself or other persons, perform the following steps to remove the machine from the shipping pallet:

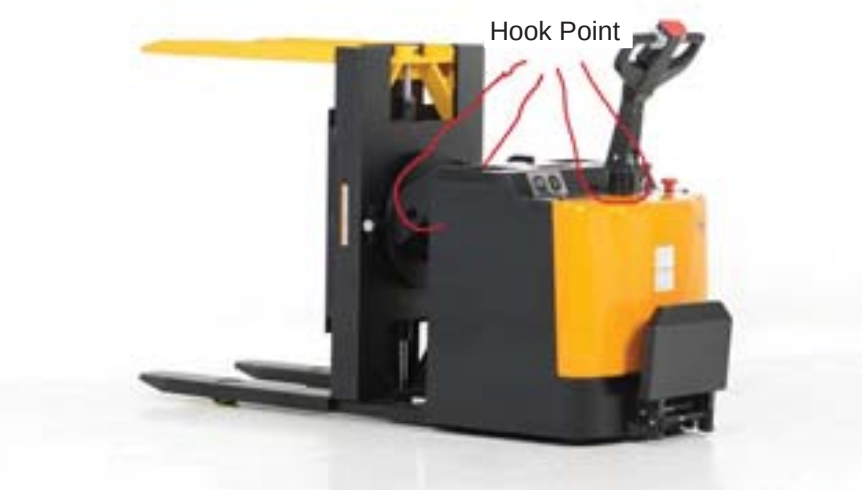
1. Remove all packing material.
2. Inform all personnel not participating in the unpacking process to clear the area.
3. Lift the PPI-150 off of the pallet using a hoist or a with a capacity of at least 4,000 pounds. Always apply the proper hoisting procedures or forklift operation practices you learned during your training program.

To remove PI-P-4400-3254 from the shipping pallet using a hoist:

To Lift Pallet Inverter with Overhead Hoist:

1 - Take the machine cover off
2 - Hook a sling under hand le comun
3 - Hook one sling on each side of the tilt mast (1 on each side; the picture below only shows only one sling)
4 - Lift the unit no more than 6 - 8 inches above the pallet. Pallet inverter will tilt towards rear end. Additionally, it may swing from side-to-side once free of the pallet if did not position the hoist above center of the slings. Stabilize the suspended truck with one hand, and stand safely to the side while operating the hoist.





To Lift Pallet Inverter with Fork Truck:

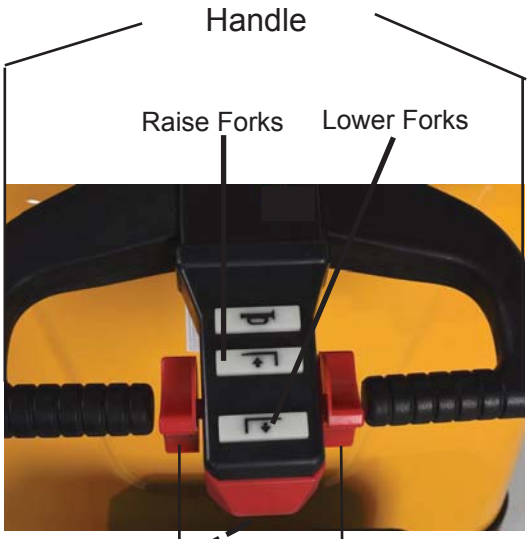
Lift the Pallet inverter with a fork truck at these two points

FIG. 5: Function Controls, Gauges, and Safety Features

BATTERY CHARGE GAUGE:

The battery charge gauge indicates the status of the battery. It is located on top of the EPT main body and to the right of the control yoke. As the battery discharges, display lines disappear from right to left.

Always check the gauge before using the device; make sure that the battery is charged before using the pallet truck.



BELLY SWITCH:

The belly switch protects the operator from injury while driving the **PI-P** in reverse. When pressed, the truck will change direction, i.e. move forward, for approximately 3 seconds; after 3 seconds it will stop completely. If the belly switch becomes jammed or stuck, the stacker will move forward (away from the operator) for at most 3 seconds; the control circuit will remain disabled until reset.

- To reset the circuit, either raise the handle to the fully vertical position (or simply release the handle), or press it downwards to the fully horizontal position.

EMERGENCY STOP ("E-STOP") BUTTON:

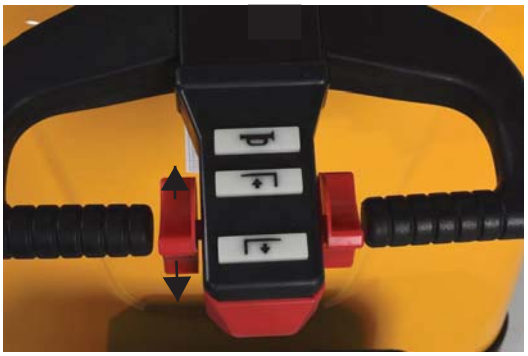
Press the E-stop button to immediately interrupt all powered functions. Use the E-stop during operation if the travel or fork (raise and lower) functions do not respond normally to operator commands.

Use the E-stop as a service brake to secure the S-2CB when parked.

MOVEMENT CONTROLLERS:

To drive the PI-P in the **forward** direction, rotate the movement control forward with your thumbs as indicated by the solid arrow superimposed on photograph below. To move the pallet truck in **reverse**, rotate the control wheel in the opposite direction, which is shown with a dashed arrow.

Forward Reverse



The degree of rotation determines the speed of movement, so the farther you press the wheel in either direction, the faster the PI-P will travel, up to a maximum speed of ~3.4mph when unloaded or ~2.8mph when loaded to capacity. Simply by releasing the movement control, the PPI-150 will decelerate to a complete stop.

USE INSTRUCTIONS:

1. Determine Condition of Floor or Other Supporting Surface: Inspect the floor or other surfaces prior to use. The supporting surface must be smooth and dry so choose a route that avoids obstacles, spills, and surface damage.

CAUTION Casters might become stuck in gaps or cracks in the surface, which could cause the stacker to stop suddenly. A sudden stop can cause the load to shift and truck might tip over.

2. Inspect the pallet inverter & Perform a Functions Test:

Inspection Prior to Use:
ALWAYS inspect the unit before you use it. Begin the inspection by removing all debris found on the surface of the forks and the housing, and then:

a. Check the forks for deformation and cracks;
b. Check the floor beneath the truck and the truck itself for leaked hydraulic fluid or battery acid.

WARNING DO NOT use the unit if you discover any damage or abnormalities. Tag the unit "Out-of-Service" and report the problem[s] to authorized maintenance personnel.

Functions Test:
Verify that the unit works properly. Drive the unit to a location where the following tests can be performed without contacting overhead obstructions or items on the ground:

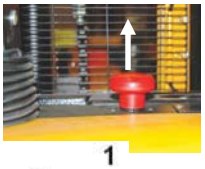
1. Raise the forks to the maximum elevation;
2. Return the forks to the lowest position.
3. Raise the forks, and while raising them, press the E-stop button. The forks should immediately stop moving. Reset the E-stop.
4. Fully raise the forks, and while lowering the forks press the E-stop. The forks should immediately stop moving. Reset the E-stop.
5. Drive the unit in reverse at low speed and while driving press the belly switch. The machine should immediately move in the opposite direction for ~3 seconds and then stop. Reset the control yoke.
6. Drive the unitin both the forward and reverse directions for a few seconds.
7. Test the horn
8. Verify that the control yoke automatically returns to the vertical position when released (see Operation Step 3 on this page).

WARNING Only use the truck if all mechanisms function normally. If [a] malfunctions occurred, park the unit in a safe location, tag it "Out-of-Service" and then report the malfunctions to maintenance personnel.

Operation:

Step 1: Turn on the power.

Step 2: Pull the red E-Stop button up to disengage the service brake.



Step 3: Tilt the control yoke to the drive position (#2), which is shown in the photograph to the right.

1 = Neutral

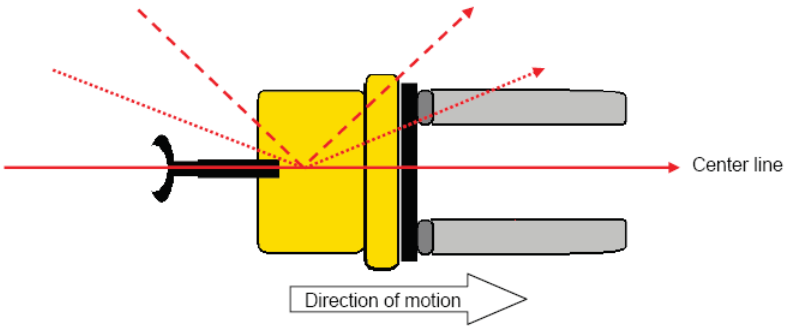
2 = Drive

3 = Neutral

NOTE: Machine uses magnetic brakes, which engage when the handle is in or near either of the neutral positions (1 and 3). The yoke is designed to automatically return to neutral position #1 after the handle is released; therefore, the brakes will engage automatically as well.

Step 4: Rotate the movement control wheel in the appropriate direction to move either forward or in reverse.

Step 5: Drive the unit to the desired location. To steer the unit, turn the yoke to the right or left of the center line. Moving the yoke to the right will cause the stacker to turn to the right, and moving the yoke to the left of the center line will cause the unit to turn left. The degree of deflection from the centerline determines how sharply the stacker turns. The illustration at right demonstrates how the position of the yoke determines the direction the machine follows.



Lifting and Transporting Loads:

WARNING DO NOT operate the unit until you read AND understand every instruction. If you do not understand an instruction, contact Vestil for clarification. To reduce the possibility of sustaining or causing serious personal injuries, ALWAYS:

1. Make sure that all other persons clear the area while you use the machine.
2. Apply the fork truck operation and lifting practices learned during your operator training, and applied by your employer. Follow the instructions below ONLY to the extent that they do not disagree with the operating practices required by your employer.
   - Make sure that the net weight to be lifted/inverted (load + skid) does not exceed the rated load (capacity) of your truck;
   - Center and evenly distribute the load on the forks. The load must not project more than 2" beyond the tips of the forks.
3. Review the safety guidelines on p. 3 before each use:
   - Apply proper loading techniques;
   - Ask a coworker to help you load and unload the lifter.
4. "Operator" means a person, who is trained and authorized to use a manually propelled high lift device. ONLY persons who have successfully completed a training program, like the courses outlined on p. 4-5 of B56.10-2006, should operate the stacker. Safe operation requires operators to:
   - Develop safe working habits and a process for identifying hazards that exist or might be encountered during operation;
   - Conduct thorough inspections of the usage area to identify unusual/hazardous conditions. Walk the path you will use to transport loads with the lifter beforehand. Do not use the stacker lift if the floor (or other supporting surface) is uneven or damaged or cannot support the combined weight of the operator, the lifter and the load.
   - Make sure that the lifter has been inspected as recommended in the "Inspections & Maintenance" section of this manual. Use the lifter ONLY IF it is deemed safe to use by designated inspection personnel.

To engage a pallet/skid, drive the unit to a position in front of the intended load. Before engaging the load, confirm that the forks will fit within the fork pockets. Fully lower the forks to allow them to slide into the fork pockets of the skid. Confirm that the net weight of the load plus the skid do not exceed the capacity of the truck.

Continue forward until either the skid rests against the back (vertical/upright portion), or the forks are as far underneath the skid as they can be. When the skid contacts the back of the forks, put the yoke in a neutral position to stop forward motion. Wait until the unit stops completely, and then lift the skid off of the ground/supporting surface by pressing one of the two fork raising buttons.

Proper Transport Configuration: To avoid unintended contact between the skid/pallet and surface features, transport the load to the desired location with the forks elevated.

To release the load, stop in the desired location; fully lower the forks; and then slowly drive the machine reverse until the forks are no longer beneath the skid/pallet.

Batteries and Charger:

DANGER The charger allows electrical current to flow from a wall socket through the batteries. While operating the charger, contact with water (rain, snow, etc.) could result in electric shock or electrocution. Do NOT recharge the batteries if the stacker is outdoors. Only recharge the batteries indoors.

Turn off your stacker:

- Turn the key or Push E-stop to turn off the stacker

Plug the charger's AC cord into an 115VAC power source:

The AC cord is tucked inside the battery box on the left side

NOTICE A proper storage location is one where the unused lifter will not:

1. Interfere with or obstruct traffic or other operations;
2. Be exposed to corrosive chemicals or water, either as a consequence of weather or of worksite **conditions.**

TROUBLESHOOTING:

⚠WARNING Before performing any corrective action described in the following table, block the drive wheel off of the ground.
Contact Vestil for problems at time of installation, or for any problems not addressed below.

Problem:	Possible cause(s):	Action:
Unit does not respond to movement controls (does not move either forward or in reverse).	Battery voltage low (battery charge lower than 17 Volts)	Charge batteries. Bad batteries; load test batteries and replace if necessary.
	Problem with motor controller (check for LED flash code on side of controller)	Consult diagnostics page Table 2 Troubleshooting Chart; or Refer to 15-124-029 electrical drawing for proper voltage readings and operation; or Consult Factory
	Fuse blown	Remove back shroud and check fuses.
Unit will not charge	Charger malfunction	Verify output voltage on charger, it should be 26 to 30 volts, dc, connected to batteries, and plugged into 115vac.
Unit will not go forward; reverse works; belly switch just kills unit (does not go forward and faults out)	Bad batteries Broken wire, or loose connection	Load test the batteries Locate Pin 2 on Molex connector at motor controller. Trace wiring to contactor and verify connection.
	Contactor bad, motor controller bad	While attempting to go forward, tap on the contactor with a screwdriver handle. If the unit moves forward, then the contactor may need replaced, or plungers lubed with a light oil. Remove both wires from each side of the contactor, and check with ohm meter; resistance should be approximately 38 ohms. If it's open or zero, the contactor should be replaced. Consult diagnostics page Table 2 Troubleshooting Chart; or Refer to 15-124-029 electrical drawing for proper voltage readings and operation; or Consult Factory.
Unit will not go reverse; belly switch works (i.e. when the handle is in operating range and rotating throttle in reverse and the belly switch is hit, the unit moves forward and times out)	Broken wire, or loose connection, contactor bad, motor controller bad	Same as above; except locate Pin 3 on Molex connector on motor controller…and follow procedure.

Problem:	Possible cause(s):	Action:
Unit will not go forward, or reverse.	Broken wire, or loose connection, bad motor controller.	Locate Pin 6 on Molex connector at the motor controller. Try to drive the unit in forward, there should be 0 to 5 volts (5V is full throttle) at this pin. If there is voltage at pin 5, and 24 volts on either pin 11, or 12 and the unit does not move, the motor controller may be bad. Consult diagnostics page Table 2 Troubleshooting Chart; or Refer to 15-124-029 electrical drawing for proper voltage readings and operation; or Consult Factory.
	Throttle assembly bad	If the connections are all good, and there is no voltage coming out of throttle assembly, then the throttle assembly may be bad. Verify there is 24 volts going into the throttle assembly, and that there is a good ground. If there is still no output voltage for pin 6, or forward and reverse outputs replace throttle assembly. Consult diagnostics page Table 2 Troubleshooting Chart; or Refer to 15-124-029 electrical drawing for proper voltage readings and operation; or Consult Factory
Unit will not move forward, or reverse, and the Belly switch will not function, unit does turn on as indicated by the battery gage lighting up.	Blown fuse	Verify fuses are good, replace if blown.
	Broken wire, or loose connection	Locate Pin 7 on Molex connector at the motor controller. Trace wire back up to tiller head and verify continuity all the way to the throttle assembly. Repair any loose connections. When replacing throttles, it may be necessary, and does not hurt to run a jumper wire from pin 7 to B-. Check the ground wire that comes off of “B-“ on the motor controller. Re-terminate with a ring terminal if loose. Run jumper wire around large diode coming off of small AGC fuse. If this diode is bad it can cause the unit to not move.

Problem:	Possible cause(s):	Action:
Unit will not go forward; the belly switch functions; reverse works.	Broken wire, or loose connection, bad motor controller	Locate Pin 11 on Molex connector at the motor controller. Try to drive the unit in forward, there should be 24 volts at this pin. If there is voltage and the unit does not move, the motor controller may be bad. If there is no voltage, trace the wiring back towards the tiller head and check voltage on each side of connectors. Continue this until bad connection is found.
	Bad throttle assembly	If the connections are all good, and there is no voltage coming out of throttle assembly, then the throttle assembly may be bad. Verify there is 24 volts going into the assembly, and that there is a good ground. If there is still no output voltage for pin 11, replace throttle assembly. Reference 15-124-029.
Belly switch does not function; forward ok; reverse ok	Broken wire, or loose connection, bad motor controller	Locate Pin 13 on Molex connector at the motor controller. Try to drive the unit in reverse, and hit the belly switch… there should be 24 volts at this pin. If there is voltage and the unit does not move, the motor controller may be bad. If there is no voltage, trace the wiring back towards the tiller head and check voltage, or continuity on each side of connectors. Continue this until bad connection is found.
	Bad belly switch	If the connections are all good, and there is no voltage, then the switch may be bad. Verify there is 24 volts going into the switch; and check to see if it is coming back out of the switch when depressed. If there is no output voltage, replace the switch.
Unit will not move at all.	Stuck Switch	The belly switch is stuck on. Tap the orange belly switch assembly to see if the switch can be freed. If this doesn't work, disassemble the tiller head by removing 3 screws from bottom. Slightly loosen up the two screws that hold the switch in place, this may free the switch. If it is still stuck, contact the factory for a replacement switch.

Problem:	Possible cause(s):	Action:
Unit will not raise; motor does not run	Loose wire	Verify 24 volts at coil when raise is pushed, if no voltage, trace wiring back to till her head looking for voltage on each side of the connectors until the bad connection is found.
	Bad solenoid	If voltage is present at the solenoid and the unit does not raise, remove the two wires to the coil and measure the coil resistance. It should be around 19 ohms. If it's open, or shorted replace the solenoid.
	Upper limit switch out of adjustment	Bypass upper limit switch and see if the unit raises…DO NOT TAKE IT ALL THE WAY UP… If it does raise, verify the limit switch is normally closed and will open when activated. If the limit switch is ok, try to adjust the switch accordingly so that the units raise height is approximately 7 to 8"
	Blown fuse	Check fuses.
Unit will not raise; motor runs	Lower solenoid stuck on	Check to see if the lowering switch is stuck on. If it is, remove the tiller head via 3 screws on bottom and replace switch, or tap on switch to see if it can be freed up. If the lower switch is not stuck "on," the pump could be bad, consult factory.
Unit will not lower	Loose wire; bad coil	Verify 24 volts at coil when lower is pushed, if no voltage, trace wiring back to tiller head looking for voltage on each side of the connectors until the bad connection is found. If voltage is present at the coil and the unit does not lower, remove the connector to the coil and measure the coil resistance. It should be around 39 ohms. If it's open, or shorted replace the coil.
	Upper limit switch out of adjustment	Loosen hydraulic line at pump to relieve pressure build up. Re-adjust limit switch so unit stops at 7 to 8 inches above the ground.
Unit keeps blowing fuses when the raise button is pressed	Shorted solenoid for motor raise	Remove the wire to the solenoid coil on the pump motor. Measure the resistance, it should be around 19 ohms. If it is nearly zero ohms replace the solenoid.

Problem:	Possible cause(s):	Action:
Unit will not reverse; belly switch does not function; forward ok	Broken wire, or loose connection, bad throttle assembly, bad motor controller.	Locate Pin 12 on Molex connector at the motor controller. Try to drive the unit in reverse, there should be 24 volts at this pin. If there is voltage and the unit does not move, the motor controller may be bad, consult factory. If there is no voltage, trace the wiring back towards the tiller head and check voltage on each side of connectors. Continue this until bad connection is found. If the connections are all good, and there is no voltage coming out of throttle assembly, then the throttle assembly may be bad. Verify there is 24 volts going into the assembly, and that there is a good ground. If there is still no output voltage for pin 12, replace throttle assembly. Reference 15-124-029.

Maintenance and Inspections:

According to ANSI B56.1, the pallet inverter is a "motorized hand truck" (MHT). For this type of truck, only trained, authorized persons should perform inspections or maintenance.

Inspections: ALWAYS review the following warning messages and procedures BEFORE inspecting the MHT.

⚠WARNING DO NOT use the truck if an inspection reveals structural damage. Structural damage includes, but is not limited to, cracked welds, warping or other deformation of the cylinder brackets, forks, front rollers and wheel(s), handle, or the housing that protects the electrical components.
If an inspection exposes any problem, restore the MHT to normal operating condition BEFORE returning it to regular service. The MHT must not be used until all repairs have been completed.

NOTICE According to B56.1-2005:

- A "User" is "a person or organization responsible for employing powered industrial trucks." Therefore, the person or business that owns the MHT is a user.
- "Authorized" means any person designated by the user to operate or maintain the equipment. In other words, the owner, most likely your employer, is responsible for training and selecting people to inspect and maintain the MHT.

NOTE: A user may choose to contract with a person or an organization for maintenance services. **Vestil is not responsible for the actions of independently contracted maintenance service providers**.

- DO NOT use brake fluid or jack oil in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil, viscosity grade 150 SUS at 100°F, (ISO 32 @ 40°C), or a non-synthetic transmission fluid.
- Only use replacement parts either supplied or approved by the manufacturer.

The person(s) authorized **by the end-user** to inspect the MHT must do so before it is used for the first time, and before each subsequent use. If the MHT is rarely used, inspect the unit at least once per month, or before each use, whichever is more frequent. Before the inspection, a) disconnect the battery, and b) either chock the wheels or lift the MHT until the drive wheels no longer contact the ground.

Inspect the machineprior to each use. Specifically look for:

1. Oil leaks;
2. Structural damage: cracked welds, warping or other deformation of the cylinder brackets, forks, front rollers or drive wheel(s), handle, or the housing that protects the electrical components;
3. Proper function of all limit switches;
4. Proper horn operation;
5. Normal battery condition: clean, not leaking electrolyte solution, secure connections with both terminals. Also make sure that the battery is immobilized so that it cannot move during operation.
6. Proper rotation of all wheels.

Inspect the MHT each month:

1. Oil level: raise the forks to the maximum height; when the cylinder(s) are properly filled, the oil level should be 1-1/2 to 2 inches below the reservoir fill hole. Return the forks to the fully lowered position.
2. Damage to or excessive wear of:
    a. Pivot points;
    b. Hydraulic hoses;
    c. Electric wires;
    d. Retaining rings for the rollers, drive wheels, and all pivot points;
    e. Bearings
3. Wobbliness or looseness of rollers and/or drive wheels;
4. Proper function of the hand or foot actuated mechanisms;
5. Proper battery water level;
6. Unusual noise or abnormal movement during operation;
7. Legibility and undamaged condition of all product labels.

Maintenance: the end-user must implement a scheduled maintenance program to ensure the proper function and safety of the lifter. Pages 12-13 of ANSI/ITSDF standard B56.1-2005 describe some recommended maintenance procedures, and the following steps should be utilized in conjunction with those recommendations.

⚠WARNING The user is responsible for training persons to work on the MHT. "Work on" refers to operating, loading, cleaning, servicing, maintaining, or repairing the product. ONLY trained, authorized maintenance personnel or independent contractors chosen by the user should perform inspection, maintenance, or repair work.

Step 1: Tag the MHT, "Out of Service."

Step 2: Complete an every use and a monthly inspection. If deformity, corrosion, rusting, or excessive wear of structural members is present, DO NOT use the MHT. Contact Vestil for instructions.

Step 3: Remove any dirt or other matter from the forks and other surfaces.

Step 4: Perform all other necessary adjustments and/or repairs, but DO NOT modify the truck.

⚠WARNING The reader should understand the significant difference between necessary adjustments and repairs, and modifications.

An adjustment is a simple correction that restores the MHT to normal operating condition, such as tightening loose fasteners, or removing dirt or other debris from the surface; a repair refers to replacing worn parts with new or replacement parts.

- DO NOT use the truck if adjustments and/or repairs are incomplete! Return it to service ONLY after finishing all necessary repairs and adjustments.

A modification is a change that alters the MHT from normal operating condition, like bending the structural members or removing a part or several parts. **NEVER modify the unit without the express, written approval of Vestil. Modifications may render the product unsafe to use**.

Step 5: Make a dated record of the repairs, adjustments and/or replacements made.

MARKINGS:

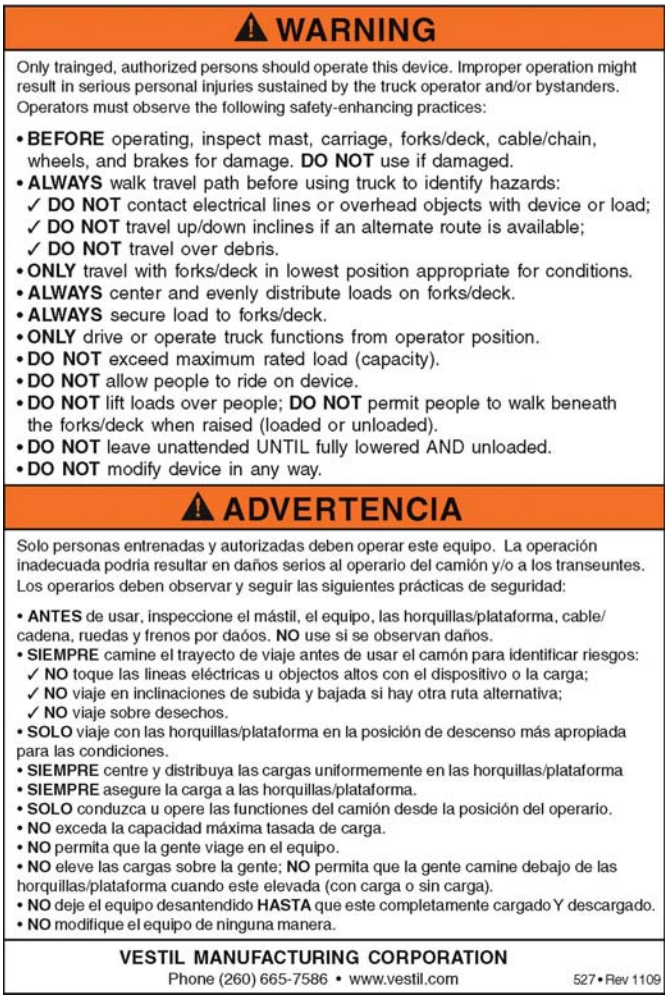
Only use the lifter if ALL labels are readable and undamaged. Contact Vestil for replacement labels if necessary, and DO NOT use the pallet truck until all replacement labels are affixed to the device.

Proper label placement is shown below:

Label #206

Label #220

Label #527



Label #295

Label #208