SOUTHWORTH

OWNER'S MANUAL

PalletPal Stack-n-Go

Fork Over Model

Model FPS3000-NFO-21

Model FPS3000-NFO-27

Model # _____

Serial # _____

Date placed in Service _____

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Please note:
This manual was current at the time of printing.
To obtain the latest, most updated version, please contact
Southworth's Customer Service Department or go to our website:
www.SouthworthProducts.com, under Parts & Service
you will find a complete list of current
owner's manuals to print.

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INTRODUCTION

This manual attempts to provide all of the information necessary for the safe and proper installation, operation and maintenance of the Southworth Products battery operated, PalletPal Stack-n-Go. It is important that all personnel involved with the installation, maintenance or operator of the stacker read this manual. Additional manuals are available upon request or at www.SouthworthProducts.com.

Each Southworth stacker is equipped with nameplate, serial number and model identifications. Please refer to these numbers when ordering parts or requesting further information.

This Southworth stacker is designed for lifting, lowering and positioning a wide variety of loads. WHERE UNIQUE SITUATIONS ARISE, WHICH ARE NOT COVERED IN THIS MANUAL, CALL SOUTHWORTH PRODUCTS FOR FURTHER INSTRUCTIONS.

The battery operated stackers are designed for dry in-plant/non-hazardous locations only. They can be used in a 8' or larger aisle. These units are not for personnel lifting.

Responsibility of Owners and Users

Inspection and Maintenance

The device shall be inspected and maintained in proper working order in accordance with Southworth's owner's manual.

Removal from Service

Any device not in safe operating condition such as, but not limited to, excessive leakage, missing rollers, pins, or fasteners, any bent or cracked structural members, cut or frayed electric or hydraulic lines, damaged or malfunctioning controls or safety devices, etc. shall be removed from service until it is repaired to the original manufacturer's standards.

Repairs

All repairs shall be made by qualified personnel in conformance with Southworth's instructions.

Before Operation

Before using the device, the operator shall have:

- Read and/or had explained, and understood, the manufacturer's operating instructions and safety rules.
- Inspected the device for proper operation and condition. Any suspect item shall be carefully examined and a determination made by a qualified person as to whether it constitutes a hazard. All items not in conformance with Southworth's specification shall be corrected before further use of the equipment.

During Operation

The device shall only be used in accordance with this owner's manual.

- Do not overload.
- Ensure that all safety devices are operational and in place.

Modifications or Alterations

Modifications or alterations to any Southworth industrial positioning equipment shall be made only with written permission from Southworth.

SAFETY

You must be trained and certified to operate this powered stacker. Federal law states that only properly trained operators are permitted to operate a powered industrial stacker and that your employer must train you and certify that you are qualified. (OSHA 1910.178 29QFR-7-1-06 Edition)

Southworth Products does not offer operator training. Operator training programs may be offered by your local Southworth distributor or obtained online. Enter, "powered industrial truck operator training" into a search engine.

The battery operated stackers are very powerful lifts capable of doing large amounts of work.

DO NOT OPERATE THESE LIFTS WITHOUT CAREFULLY READING OF THIS MANUAL. In order to provide for the safe operation of these stackers, Southworth Products has identified certain hazards that may occur during the maintenance and use of these lifts. For safety reasons these units are designed to be serviced or repaired in the fully lowered position. If performed properly, this will greatly reduce the possibility of injury.

⚠WARNING

When servicing the unit:

1. Key should be in "OFF" position.
2. E-stop should be depressed.
3. Disconnect the batteries at the terminals.

- Do not perform any repair work on lifts if there is a load on the forks.
- Do not perform any repair work if the forks are in the raised position.
- All personnel must stand clear of the lift while in motion.
- Do not put hands or feet under the forks.
- Do not stand underneath the forks.
- Do not stand in front of the stacker while in motion.
- Do not stand, sit or climb on the lift.
- Do not use the lift on soft, uneven or unstable surfaces.
- Do not exceed the load center or capacity.

⚠WARNING

You or others around you can be seriously injured or even killed if you don't use this stacker correctly. Read and obey all warnings and instructions in this manual and on the stacker. It is your responsibility before starting work to make sure it is in good working order.

Always be alert to the area around you and watch where you are walking. Be careful that you don't get pinned or crushed between the stacker and a fixed object such as a wall or post.

- Watch your hands and feet. A foot or hand caught between the stacker and a fixed object will be crushed or even cut off.
- If traveling forks first, keep both hands on the control handle and be careful when changing direction of travel. Keep your feet clear of the stacker.
- Keep the stacker under control at all times. Operate at a speed that allows you to stop safely. Be even more careful on slippery or uneven surfaces. Do not run over objects on the floor.
- Perform all stacker movements smoothly and at a speed that will give you time to react if an emergency occurs.

Tipovers and falls are very serious accidents; you can be crushed or even killed. To prevent injury, know where you are at all times and follow the rules of safe stacker operation.

- Be careful when working around docks, dockboards and trailers. Stay away from the edge of docks and ramps. Check to make sure the wheels of truck or trailers are chocked.
- Travel with the load or forks close to the ground.
- Watch for overhead obstructions.

- Keep your hands and feet away from all moving parts such as masts, chains, forks or wheels.
- Never stand on or under the forks, or allow anyone else to stand on or under them. Never ride on the stacker or allow anyone else to ride. There is no safe place to sit or stand.
- Before you leave your stacker, be sure to lower the forks to the floor. Shut the stacker off with the key.

⚠WARNING

DO NOT use this stacker until you have been trained and authorized to do so.
DO NOT operate until you have read all warnings and instructions.
DO NOT exceed load center or load weight capacities (check capacity plate).
DO NOT operate until you have checked the conditions of the stacker: lift systems, forks, chains, and cables.
DO NOT use if any part is damaged, worn or not working properly.
DO NOT use on ramps or inclines. Only flat smooth level surfaces.
DO NOT use for lifting or carrying people.
DO NOT handle unbalanced, unstable or loosely stacked loads.
DO NOT travel with forks or platform in an elevated position.
DO NOT handle tall, unsecured or unstable loads that could fall.
DO NOT allow people to stand or pass under forks or platform with or without load.
DO NOT operate when parts of anyone's body may be close to mast structure or any moving parts.
DO NOT drop loads on platform or forks.
DO NOT alter or modify this stacker in any way.

INSTALLATION

AUTHORIZED OPERATORS SHOULD READ AND UNDERSTAND ALL INSTRUCTIONS, PRECAUTIONS AND WARNINGS. IMPROPER USE OF THIS LIFT TRUCK COULD RESULT IN INJURY AND/OR DAMAGE TO LOAD AND EQUIPMENT.

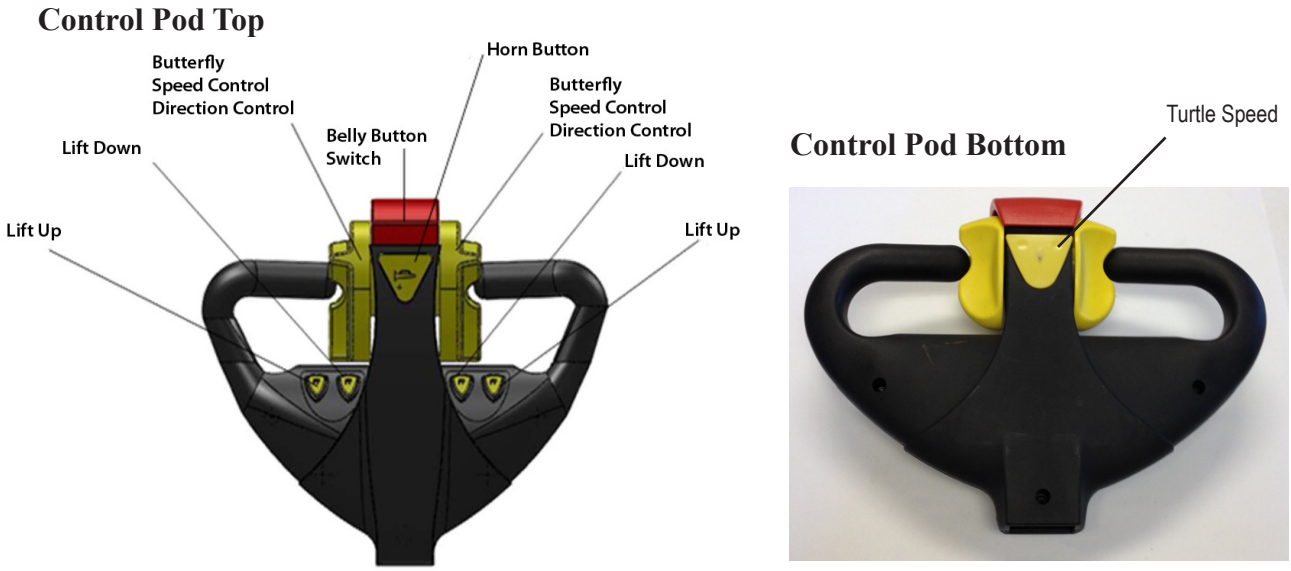
- Inspect the lift for damaged or worn parts. *Do not* use if not in safe operating condition.
- Use lift on dry hard level surfaces only.
- Make sure load is evenly distributed, not loose or unstable, and is as far back on platform or forks as possible. *Do not* pick up loads on tips or forks or edge of platform.
- For fork models, adjust forks to the maximum practical width. Pick up loads on both forks.
- *Do not* overload. Check load center and load weight capacities on the nameplate.
- Make sure travel and work area is clear of obstructions.
- Check overhead clearance before lifting loads or transporting.

A. INSPECTION:

Upon receipt of the stacker, inspect the equipment completely to determine if there is any shipping damage, and that the lift is complete. Southworth tests and inspects every piece of equipment prior to shipment. If damage is apparent, a freight claim must be filed with the freight company. Do not use the stacker if there appears to be any damage. With the stacker in a lowered position, check the following:

- Check for signs of damage especially to the back cabinet that houses the battery, electrical/hydraulic power pack.
- Check all electrical and hydraulic connections for tightness.

Figure 1: Operating Buttons



- Remove back panel.
  1. Turn key switch to "OFF" position.
  2. Push in E-stop and unscrew the red knob
  3. Lift off back panel. There is enough wire to the key switch to allow the panel to be set aside.
     - Inspect for any bent or damaged parts.

B. REMOVING FROM PALLET

Each of the Southworth stackers is shipped out on a pallet or skid. Prior to removing the unit from the pallet or skid, remove all tie down straps and packaging. Visually inspect the unit as closely as possible.

With an overhead hoist or forklift, carefully pick up the unit taking into consideration the center of gravity of the unit. If you choose to pick the unit with an overhead hoist, use a nylon sling and hoist with a minimum of 2,000-lb. capacity. The nylon sling will not do any damage to the steel construction of stacker. Pick the unit up. On conventional masts use the top crossmember of the lift. On narrow masts the cover must be removed to access lifting equipment. Be careful of the stacker swinging once fully lifted off the pallet or skid. Have all personnel completely cleared from the area.

Pick the unit up approximately six inches above the pallet or skid. Once raised, remove the pallet or skid from below the lift. Do not move the lift around in the air. Lower the stacker on the ground.

C. PREPARATION FOR USE

This stacker left our factory in new condition. It has been inspected and weight tested to assure all performance standards have been met.

Visually inspect the stacker for damage. Check for attachments and accessories that may have been ordered. If there is any damage or missing parts, report it to your carrier and your Southworth distributor immediately.

Remove all metal/plastic bands, cardboard and other material used for shipping purposes.

Check to see if chains are in place, and that the lift system is in working order. Inspect for oil leaks.

Connect battery cable. Check cables and wires on battery charger as well as battery.

BATTERY

Charging must be performed with the charger that is provided with or prewired into the machine. During charging, the temperature in the battery must not exceed 120 F. Charging simultaneously with truck operation is not recommended. Plug the charger into a 115V outlet. Charge until the battery gauge indicator lights show fully charged (approximately 6-8 hours).

OPERATION

SAFETY ALERT SYMBOLS AND SIGNAL WORDS

The safety of all persons operating, maintaining, repairing, or in the vicinity of this equipment is of paramount concern. This is a powerful machine with moving parts, and is capable of causing personal injury if proper precautions are not taken. Therefore, throughout this manual, certain hazards have been identified which may occur in the use of the machine, and there are appropriate instructions or precautions which should be taken to avoid these hazards. In some cases, there are consequences which may occur if instructions or precautions are not followed. Below are the symbols and signal words along with their definitions referenced from ANSI Z535.4 - Product Safety Signs and Labels.

Safety Alert Symbols

These are the safety alert symbols. They are used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

For use with DANGER signal word
(Red Background)

For use with WARNING signal word
(Orange Background)

For use with CAUTION signal word
(Yellow Background)

Signal Words

The meaning of different signal words as defined by ANSI Standard Z535.4 indicates the relative seriousness of the hazardous situation.

(Red Background)

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

(Orange Background)

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

(Yellow Background)

CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

(Blue Background)

NOTICE is used to address practices not related to personal injury.

(Green Background)

SAFETY INSTRUCTIONS (or equivalent) signs indicate safety-related instructions or procedures.

Figure 2: Labels & Precautionary Markings Location

It is the responsibility of the owner and user to ensure that all labeling is in place and legible. Any labeling which is not legible should be replaced prior to operation.

A. OPERATING INSTRUCTIONS:

To Raise and Lower:
There are two buttons located on both sides of the handle. The inside one is for raising the forks. The outside one is for lowering the forks. When operating, always make sure the load being lifted is within the loading capacity of your stacker and the load has been stacked safely on the pallet. Also, make sure that the length of the forks corresponds to the length of the pallet. In this way, the load rollers will place themselves in the opening at the end of the pallet, so that when you raise the forks, you will not break the bottom boards of the pallet.
Always make sure that when entering the pallet that the forks are in the fully lowered position. Be careful when lifting pallets that are too short or too long for the stacker. It might destroy your pallet by breaking the bottom boards, and if the forks project through the end of the pallet, the tips of fork may go into the next pallet that is behind the pallet that you are lifting, which may bend the tips of forks and overload the capacity of the stacker.

Traversing:
To travel, rotate the butterfly controls throttle on the upper part of the handle. When rotating the butterfly control CW towards the forks, the stacker runs forward in the forks first direction. When rotating the butterfly CCW towards you, the stacker runs backwards in the handle first direction. Always make sure the stacker clears any obstruction when traveling, and that your path of travel is clear of people. Never carry loads above the loading capacity of the stacker. It is suggested that when traveling without a load, the forks be in the lowered position. The speed of the stacker is increased by the degree of the rotation in either direction; it functions like a throttle. When you release your hand from the butterfly control, it automatically will resume to the neutral position and the speed of the stacker will slow down.

Braking:
Your stacker is equipped with a magnetic brake. The brake is applied when the operators handle is outside the operating range indicated in Figure 3, see initiate movement and stop movement range, both vertically and horizontally. Contact customer service if adjustment is required. Always make sure the brake is released before operating the stacker. When the stacker is running, you could brake the stacker by raising the handle to its vertical position or lowering the handle to its lowest position. Or, to turn the butterfly controls in the opposite direction, the change in direction of the motor will slow down, stop, and reverse the direction of stacker. **When parked**, always put the handle in the full vertical position with the brake applied and the forks in lowered position.

Reversing Safety:
At the end of the handle there is a large, red reversing bar (belly button switch) that is designed to protect the operator from injury. When the operator runs the stacker backwards, and the end of the handle comes in contact with the operator's body, the stacker will automatically reverse direction and travel away from the operator. When the reversing safety bar comes in contact with your body during operation, immediately release your hands from the butterfly control and put the handle up to its vertical position or down to its lowest position and the brake is on. The reversing safety bar will automatically resume to its original position after being activated.

Horn:
As standard equipment, a horn that is located on the top of the handle.

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- Inspect the lift for damaged or worn parts. *Do not* use if not in safe operating condition.
- Use lift on hard level surfaces only.
- Make sure load is evenly distributed, not loose or unstable, and is as far back on platform or forks as possible. *Do not* pick up loads on tips or forks or edge of platform.
- For fork models, adjust forks to the maximum practical width. Pick up loads on both forks.
- *Do not* overload. Check load center and load weight capacities on the nameplate.
- Make sure travel and work area is clear of obstructions.
- Check overhead clearance before lifting loads or transporting.

Operating Surfaces, Ramps and Slopes

This Southworth stacker should only be used in 8' or larger aisles.

These units are not for personal lifting.

We do not recommend the use of this product on any surface other than flat dry, unfinished concrete floors; surfaces such as typically found in an industrial environment.

Operation on highly polished or sealed concrete, epoxy sealed floors, linoleum or other very smooth surfaces can affect drive wheel traction. If traction issues are a concern a rubber drive wheel is available through special order.

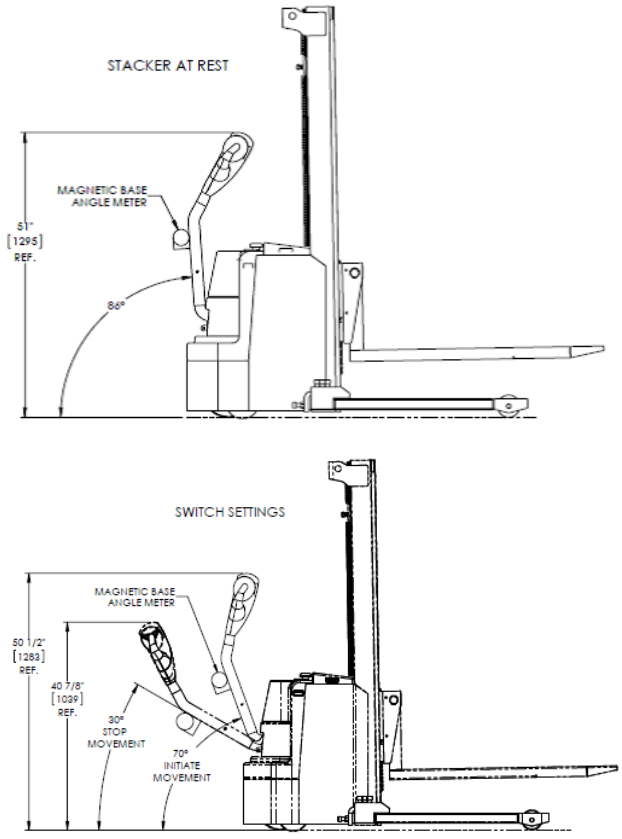
The Stack-n-Go is designed for indoor use. It is not weather tight or weatherproofed, not electrically and not mechanically. When operated on wet, oily, powdery, sandy or non-uniform, granular or compacted surfaces the drive wheel traction performance will be affected and loss of traction will occur.

We do not recommend the use of Stack-n-Go on any ramp, grade or slope. There are many concerns of both safety and performance. Issues, as such speed control, tip over, braking, traction and ground clearance just to name a few.

B. DAILY OPERATIONS MAINTENANCE CHECKS:

1. **Battery**
   - A. Check for corroded and loose terminals. A white powder substance will be present if there is any existing corrosion.
   - B. Visually inspect for any cracks or damage to the casing.
   - C. Check for loose battery tie-downs.
2. **Charger**
   - A. Inspect wire connections.
   - B. Check power cord for nicks/damage.
   - C. Check power charger for proper mounting.
3. **Hydraulic System**
   - D. Inspect pump and cylinder for oil leaks.
   - E. Check hydraulic oil level.
   - F. Check hydraulic fittings and hoses.
   - G. Check ram for nicks/damage.
4. **Frame Assembly**
   - A. Check chain roller assembly connections.
   - B. Check for any worn or damaged parts.

Figure 3: Stacker Handle



SUGGESTED DAILY OPERATOR CHECKLIST

WALK AROUND INSPECTION

1. Check general condition of lift (loose or broken parts, etc.).
2. Check for dented or scratched panels.
3. Look for broken or cracked welds, broken or worn rollers and chains. Check for loose pins or fasteners.
4. Ensure condition of wheels are not flat spotted or chunked out.
5. Check for hydraulic leaks.
6. Make sure all precautionary labeling is in place and legible.

FUNCTIONAL INSPECTION

1. Check for proper operation of UP/DWN/FOR/REV controls.
2. Check operation of brake system.
3. Check for locations of belly button switch and horn.
4. Check for hydraulic leaks.

OPERATOR ID _____

DATE _____

DO NOT USE LIFT IF NOT OPERATING PROPERLY OR IF LIFT APPEARS UNSAFE IN ANY WAY

REPORT CONCERNS TO SUPERVISOR IMMEDIATELY!

MAINTENANCE

Operation of Southworth PalletPal Stack-n-Go is very simple — as is their construction. They require very little maintenance. Reasonable care will result in excellent trouble-free performance. The PalletPal Stack-n-Go is designed for one-person operation and ease of performance.

- Grease floor wheels and casters at least once a month
- Use only Hydraulic Oil AW32 or Dextron III in the hydraulic system.
- *Do not* overload your lift.
- Check brakes, steering mechanisms and controls before each use.

Hour Meter and BDI

The Hour Meter is only recording the time the machine is actually traversing. This information is valuable to determine scheduled maintenance.

The BDI (Battery Discharge Indicator) displays the amount of battery life remaining. Although this is an approximate value it is dependable. The most accurate readings are obtained after the machine has sat idle for one hour.

A. WEEKLY OPERATIONS MAINTENANCE CHECKS:

DAMAGE: Check for bent, dented, worn or broken parts.

LIFT SYSTEM: Check to assure that there is no binding or excessive play in the forks. Check for quiet and smooth operation of the lift cylinder. Check all moving parts and linkage.

LEAKS: Check hydraulic system for leaks and hydrualic oil level.

WHEELS AND CASTERS: Check for wear and that they are turning smoothly.

LIFT CHAINS: Check to see that they are in place and not loose.

FORKS: Check that they are not bent or cracked.

BRAKES: Ensure brakes work properly.

CABLES; WIRES: Check that there are no loose cables or wires.

LABELS: Ensure all precautionary labels and guards are in place.

B. MONTHLY OPERATIONS MAINTENANCE CHECKS:

1. Battery (maintenance free)

A. Clean terminals.

B. Clean battery compartment area if there are signs of corrosion.

2. Hydraulic System

A. Clean and inspect hydraulic cylinder.

B. Lubricate chain with a rust inhibitive lubricant (light machine oil).

C. Check chain tension. It should be even on both chains. The chain should be tight enough so that it does not come off of the roller assembly.

3. Frame Assembly

A. Clean and lubricate all roller bearings, cam followers and all moving parts.

B. Clean and inspect all welds.

C. Check wheels for wear and damage.

D. Inspect nameplate for legibility. Place the serial and model number shown on the nameplate on the cover of the manual for future reference.

4. Electrical

A. Check batteries, motors, controllers, limit switches, electrical conductors and connections.

⚠CAUTION

DO NOT USE LIFT IF IT IS NOT OPERATING PROPERLY, OR APPEARS UNSAFE IN ANY WAY!

BATTERY MAINTENANCE

A. PREPARING TO CHARGE A BATTERY

1. Always turn off E-stop and key switch before working with the batteries.
2. Be sure the area around the stacker and the battery is well ventilated while battery is being charged.
3. The battery terminals, connections and wiring connections should be clean and free of corrosion. When cleaning any of these components wear a face shield or other suitable protective eyewear.

B. BATTERY CHARGING

Charging must be performed with the charger that is provided with or prewired into the machine. During charging, the temperature in the battery must not exceed 120 F. Charging simultaneously with truck operation is not recommended. Plug the charger into a 115 volt outlet. Charge until the battery gauge indicator lights show fully charged (approximately 6-8 hours).

C. WARNINGS AND BATTERY INFORMATION

Avoid use of open flame near batteries. At temperatures around freezing point, battery capacity is reduced by 30%. The battery terminals, connections and wiring should be clean and free of corrosion. When cleaning any of these components, wear a face shield or other suitable protective eyewear. Read, understand, and follow all battery and battery manufacturer's specific precautions while working with and/or charging batteries.

D. BATTERY MAINTENANCE

To measure the voltage, use a digital voltmeter (DC) on the battery poles. The truck must not have been in use for the previous 30 minutes.

⚠DANGER

Never alter the AC cord or plug provided. If it will not fit outlet, have proper outlet installed by a qualified electrician. Improper connection can result in a risk of an electric shock.

1. Disconnect the charger from the 115 volt wall outlet once the indicators read fully charged.

E. CHARGER OPERATION

LED Instruction:

Red light on: Charge error (Voltage <11V)

Red flashing light: Battery reversed polarity

Yellow flashing light: No battery connected

Yellow light on: Normal charging

Green flashing light: 80% charged

Green light on: Fully charged

CHECK INDIVIDUAL BATTERIES

VOLTAGE

Approx. 12.7 V..... Fully charged

Approx. 12.2 V..... 1/2 charged

Approx. 12.0 V..... 1/4 charged

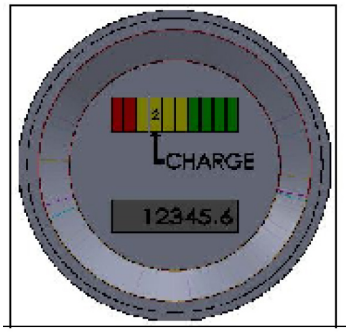
Approx. 11.6 V..... Discharged

NOTICE: When to charge the battery?
Allow the machine to stand idle for at least one hour.
Check the BDI (Battery Discharge Indicator).
If 6 bars or less are lit, it is time to charge the battery.

Battery Discharge Indicator (BDI)Operation

NOTICE

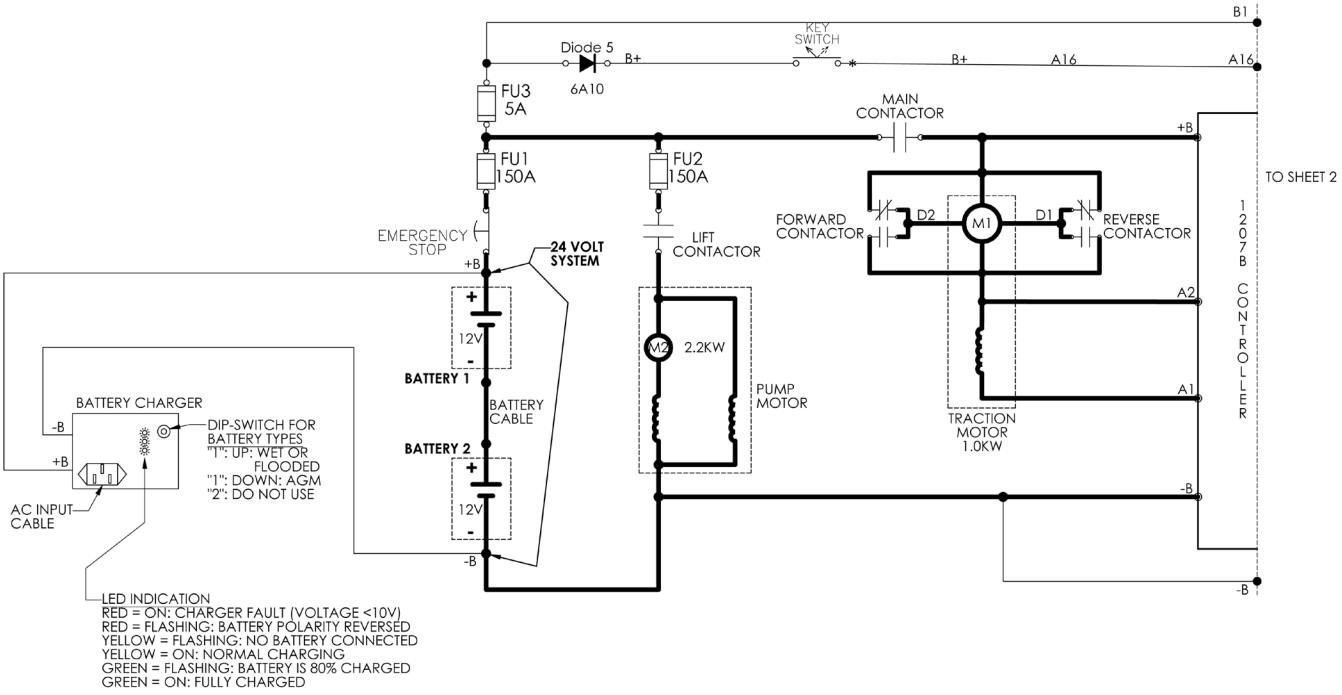
BATTERY DISCHARGE INDICATOR
WHEN TO CHARGE BATTERY
ALLOW THE MACHINE TO **STAND IDLE**
FOR AT LEAST THREE (3) MINUTES
CHECK BDI
BATTERY CAN BE CHARGED WHEN
SECOND YELLOW BAR IS LIT OR BELOW 50%
IF BDI IS SHOWING RED BARS BATTERY IS
DISCHARGED TOO FAR - **CHARGE IMMEDIATELY**



Trouble Shooting

Fault	Cause	Remedy
No lifting function	Faulty fuse	Replace control system fuse
		Replace motor fuse
	Electricity supply interrupted	Check wiring
		Battery discharged
	No hydraulic oil	Refill hydraulic oil
	Battery discharged	Re-charge battery
Will not raise to full height or pump makes a cavitating sound near full height	Hydraulic oil level is too low	Refill hydraulic oil when lifting forks are lowered
Jolts when lifting	Air in system	Do not loosen or remove the vent screw on the top of lifting cylinder. This screw does not bleed air from the system. The hydraulic cylinder is self bleeding. Raising and lowering full travel will purge the air from the system.
Forks drift down	Lowering valve is leaking	Remove and clean lowereing valve. Replace lowering valve if it still leaks after cleaning.
Drive motor does not operate	Contactor defective	Replace contactor
	Controller defective	Report error code to the Customer Service Department
Stacker does not move	Battery discharged	Re-charge battery
	Fuse defective	Replace fuse for driving motor Replace control
	Controller defective	Report error code to the Customer Service Department
	Switch on the Control handle bearing defective	Replace switch
Stacker only moves at reduced speed	Battery discharged	Re-charge battery
	Controller defective	Report error code to Customer Service Department
Battery fails to charge	Secondary fuse in the charger unit is defective	Replace fuse
	Battery is discharged, overload protection has triggered	Replace battery
	Charger is faulty	Replace charger

Figure 4: Electrical Diagram



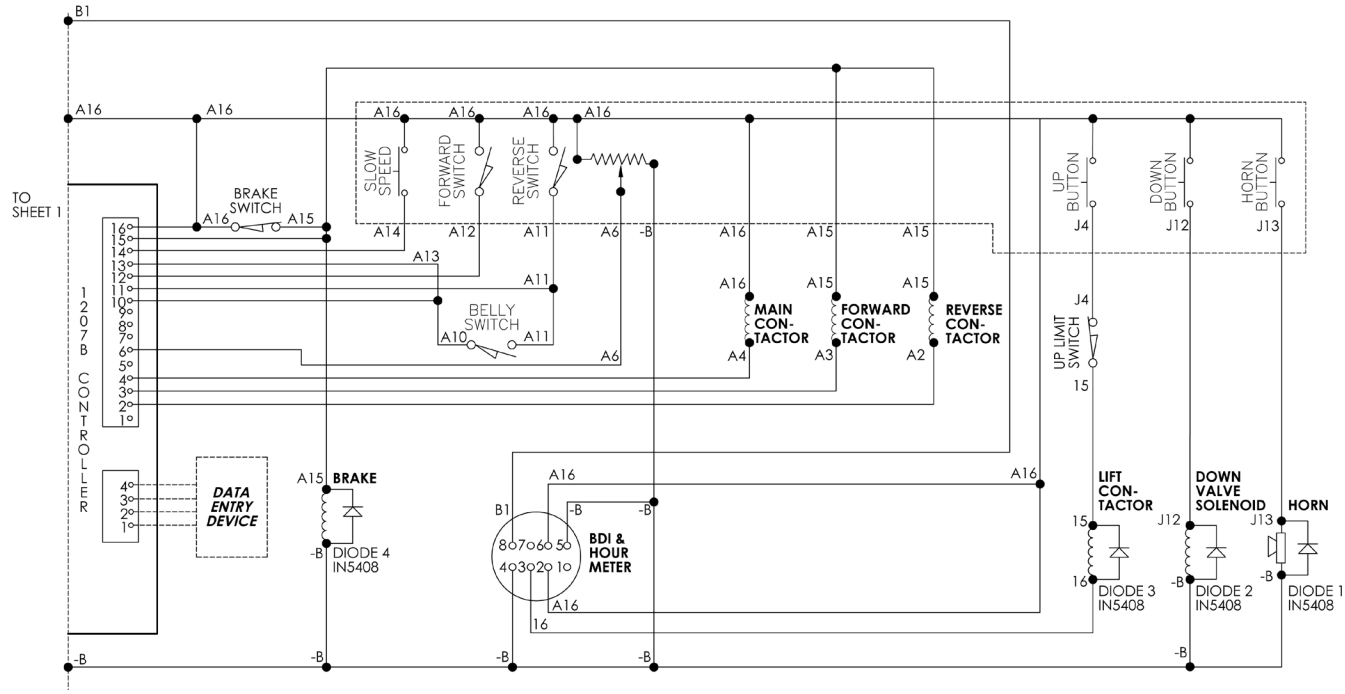
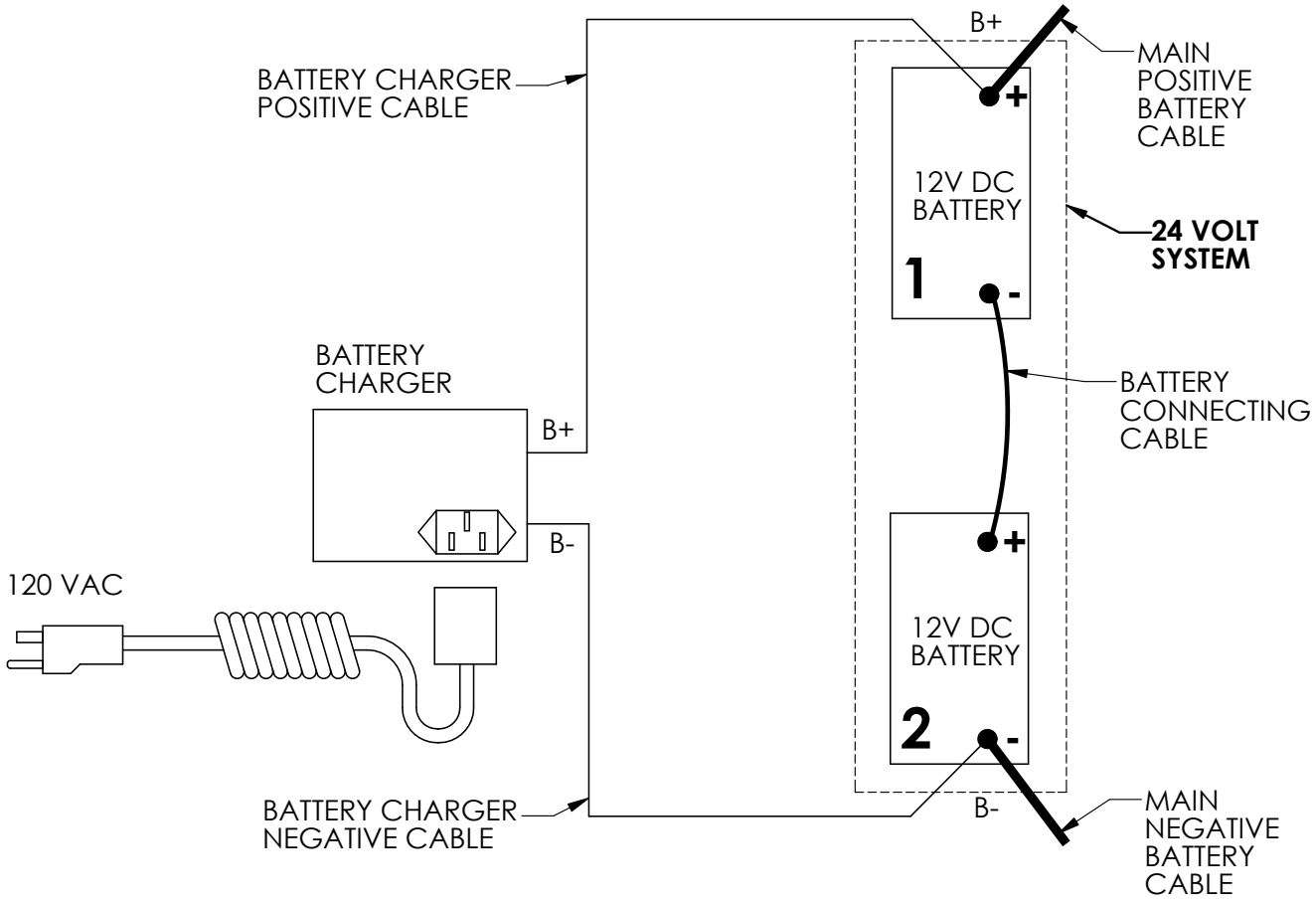


Figure 5: Battery Connection



Ordering Replacement Parts

Southworth has carefully chosen the components in your lift to be the best available for the purpose. Replacement parts should be identical to the original equipment. **Southworth will not be responsible for equipment failures resulting from the use of incorrect replacement parts or from unauthorized modifications of the machine.**

Southworth will gladly supply you with replacement parts for your Southworth lift. With your order, please include the model number and the serial number of the lift. You can find these numbers on the name plate, which is located on the crossbar at the base of the cylinder(s). When you are ordering parts for a cylinder, also include the cylinder number. This is stamped on the base of the cylinder housing.

To order replacement parts, please call the Parts Department.

Parts are shipped subject to the following terms:

- FOB factory
- Returns only with the approval of our parts department.
- Payment net 30 days (except parts covered by warranty).
- Freight collect (except parts covered by warranty).
- The warranty for repair parts is 30 days from date of shipment.

Parts replaced under warranty are on a “charge-credit” basis. We will invoice you when we ship the replacement part, then credit you when you return the worn or damaged part, and we verify that it is covered by our warranty. Labor is not covered under warranty for Parts orders.

Parts Department
Southworth Products Corp.
Telephone 207) 878-0700 or (800) 743-1000
FAX : (207) 797-4734
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www.SouthworthProducts.com

Southworth Products Stack-n-Go Warranty

Southworth Products warrants the Stack-n-Go against defects on the mast, fork carriage, chains, pumps, DC motors, controllers, cylinders and wiring harnesses from faulty material and workmanship for a period of one year from the date of invoice.

All wear items such as batteries, wheels, motor brushes, seals, bearings, hydraulic hoses, all switches, battery chargers and forks have a limited warranty against defects in faulty material and workmanship for a 90 day period from the date of invoice and 90 day limited warranty on labor. Please note that prior authorization from Southworth Products is required on all warranty work.

There are no implied warranties of any kind, more specifically; there are no warranties of merchantability or fitness for any particular purpose. Southworth Products' sole warranty shall be as set forth in this limited warranty. Southworth Products will elect to repair or replace a defective component without charge, if any components should become defective within the limited warranty period. The Southworth Warranty is for product sold with in North America. For products shipped outside of North America the warranty will be for replacement of defective parts only. Labor is not included. Proof of purchase is required for warranty. The charge for shipping the defective component is the responsibility of the buyer and must be accompanied with an RGA number. The shipping charge to return the component to the buyer is the responsibility of Southworth Products.

This limited warranty does not cover labor expense for removal or reinstallation of components after 90 days. This limited warranty shall not cover, among other things: damages resulting from foreign matter or water, failure to provide reasonable and necessary maintenance, and if applicable, use of product while charger is plugged into an AC outlet, or failure to follow operating instructions. The limited warranty is not valid for damage resulting from negligence, accident, unreasonable use, abuse or misuse, exceeding data plate capacities or altering the product without Southworth Products authorization.

Southworth Products expressly disclaims and excludes any liability for consequential, incidental, indirect or punitive damages or financial loss to people or property resulting from any breach of warranty or the operation or failure of this product.

Southworth Products makes no representation that this product complies with local, state, or federal safety/product standards codes. Should this product fail to comply in any way with those codes, it shall not be considered a defect of materials or workmanship. Southworth Products shall not be held liable for any damages resulting from noncompliance. It is the dealer's responsibility to exercise this limited warranty. This limited warranty is provided to the original purchaser (defined as the original end user) and is nontransferable. This constitutes the complete and final agreement involving Southworth Products and limited warranty obligations for products.