



**Vidir Machine, Inc.**  
**Tire Carousel Owner's Manual**



**SERVICE 866-821-2647**

## **Tire Carousel Table of Contents**

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### **VIDIR MACHINE, INC WARRANTY**

Standard warranty coverage includes all parts and labor for a period of one year from the date of delivery. For warranty claims, please call our toll free number before proceeding with any repairs or replacement parts.

**800-210-0141**

## **IMPORTANT SAFETY INSTRUCTIONS**

**Read all instructions before installing and operating this machine.**

**DANGER** – To reduce the risk of electrical shock:

1. Turn all switches to the off position and unplug the machine before cleaning, maintenance, or repairs.

**WARNING** – To reduce the risk of burns, fire, electrical shock, or injury to persons:

1. Turn all switches to the off position and unplug the machine before cleaning, maintenance, or repairs.
2. **WARNING** – Risk of injury – Keep non-authorized persons away from any extended piece of equipment.
3. Use this machine only for its intended use as described by these instructions.
4. Do not use attachments not recommended or approved by the manufacturer.
5. Never operate this machine if it has been damaged, has a damaged electrical cord, or if it is not working properly. For further instruction please contact our service line.
6. Keep cord away from heated surfaces or areas where it can be easily damaged.  
To Disconnect: Turn all switches to the off position and unplug the power cord from the outlet.
7. Do not change current limit ratings of overload protectors. For further instruction please contact our service line.  
**WARNING** – Risk of electrical shock – Connect this machine to a properly grounded outlet only. See grounding instructions.

**SAVE THESE INSTRUCTIONS**

## **GROUNDING INSTRUCTIONS FOR THE TIRE CAROUSEL**

*This product must be grounded. This is especially important during a malfunction or breakdown as grounding provides the path of least resistance for the electric current, reducing the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.*

**DANGER** – Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product. If it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This product is for use on a circuit having a nominal rating of more than 120 volts and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the product is connected to an outlet having the same configuration as the plug. No adapter should be used with this product. If the product must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel.

This product must be connected to a grounded metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the product.

## **INTRODUCTION**

Congratulations on the installation of your Vidir material handling machine. This machine has been carefully designed and constructed to provide you with many years of dependable service. It has been built to meet or exceed current U.L./C.S.A. standards. With proper care in operation and maintenance, this machine will assist you in maximizing your efficiency. To ensure the utmost value and performance from your machine, please read this manual carefully to be sure correct operation procedures are followed.

This manual provides you with operation, troubleshooting, and maintenance procedures for your machine. However, if further assistance is required or if any of these procedures are unclear, please do not hesitate to contact Vidir Machine at **1-800-210-0141**.

### **IMPORTANT CAUTION NOTICE:**

Vidir has made every effort to protect operators and bystanders from injury due to mechanical parts movement and electrical connectivity. As with any mechanical device, the operator is responsible to inspect the condition of the machine prior to use and adhere to safe operating procedures at all times.

**For service, email us now - [service@vidir.com](mailto:service@vidir.com)**

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## **GENERAL SAFETY RULES**

1. Read the operator's manual carefully to ensure familiarity with the controls and the proper use of the equipment.
2. Machine operation must be performed by trained personnel. Never allow children to operate the machine.
3. Keep the area of operation clear of all persons and potential hazards.
4. Always shut off the main power switch before servicing the machine.
5. Do not post the security password where unauthorized users will have access to it.
6. Keep all guards and shields in place.

### **NOTE:**

The following pages contain the machine operating procedures. A troubleshooting guide at the back of the manual can assist you in resolving problems you might experience.

The procedures in this section are set up for a normal sequence of operations. The arrangement is intended primarily to acquaint you with the fundamental operating procedures to ensure the safe and efficient operation of your machine.

**Think Safety**

## **BUILDING REQUIREMENTS**

1. The Carousel must be bolted to the floor before it is loaded. This machine has a total **loaded weight of 16,500 pounds**. It is the responsibility of building owner to ensure the building structure is adequate for the machine installation.
2. Electrical - **3 phase, 15 amp, isolated circuit**. A dedicated power line and circuit breaker using 4 conductor wires with a 20 amp rating is recommended. The machine has been designed to be hardwired to this electrical service. Once installed, an electrician must be available to hardwire the service to the junction box provided at the top of the machine. (Bottom junction boxes for floor wiring are available by special order at time of order placement.)

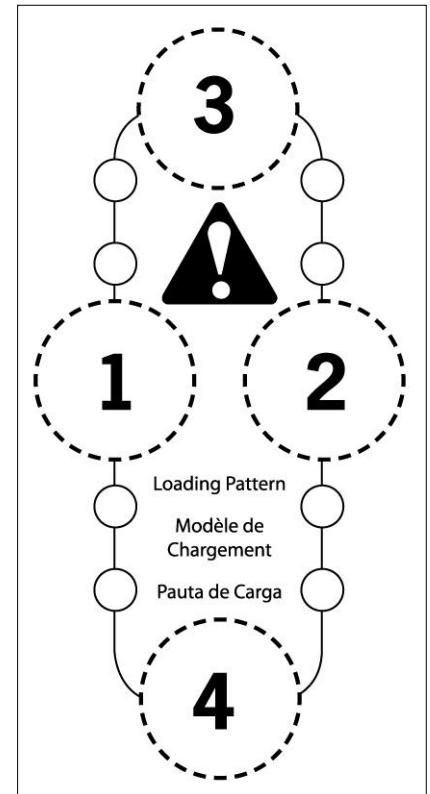
## **INSTALLATION REQUIREMENTS**

1. Vidir provides the installation equipment. This installation equipment requires 110 volt 15 amp single phase circuit at the Carousel installation site. Your electrician may need to run a temporary service line before the installers arrive. Installer waiting time will be billed at the going rate.
2. A forklift and operator should be available to unload the carousels from the truck and deliver the components to the installation site as required by the installers. Additional forklift time may be required during carousel setup.
3. Installers require a floor plan of the area with the installation location for each carousel model clearly marked.
4. A sign-off sheet has been provided for the Store Manager to indicate approval of the placement of the installed carousel. Once completed, our installers are available to bolt down the machine under the manager's supervision.
5. An electrician must be scheduled to connect electrical service to all machines upon completion of installation. The installation crew will then test run the carousels and do a final check.

## LOADING AND OPERATING PROCEDURES

### Loading the Tire Carousel

1. Consider how the product will be displayed on the carousel. It is important to keep the load evenly distributed on the carousel at all times. In the event that the load becomes off-balanced too severely it will stall the carousel and cause it to jam up.
2. Rotate Carousel until the desired carrier is at a comfortable working height.
3. Begin loading the carrier by raising the retainer bar and then placing the tires in the carrier.
4. Be sure to spread the load evenly over the full length of the carrier. Place the tire supports at the end of the row of tires to keep them upright.
5. Ensure that no plastic will get in contact with the chain on the carousel.
6. When the first carrier is full rotate it up until it reaches the top of the carousel.
7. Load the bottom carrier (second to be loaded) the same as in step 4.
8. Once the second carrier is full rotate it until it is half way up the front side.
9. Load the third carrier, once it is full rotate the carousel until the first carrier is half way up the front side.
10. Load the fourth carrier which is at the bottom now.



### **\*\* Important Notices\*\***

**LOAD ONLY EVERY 4<sup>TH</sup> ROLL WHEN FILLING EMPTY CAROUSEL**

**KEEP LOAD DISTRIBUTED EVENLY AT ALL TIMES**

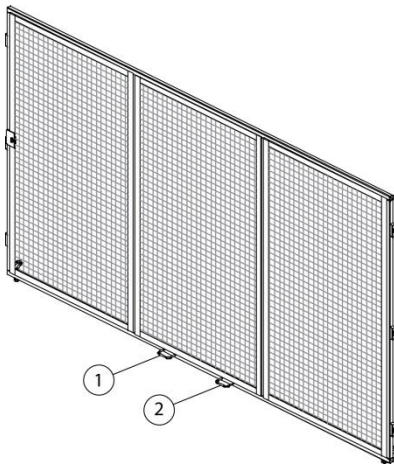
**REMOVE PLASTIC FROM THE ENDS OF THE ROLLS IF IT GETS CAUGHT IN THE CHAIN IT CAN CAUSE SERIOUS DAMAGE TO THE MACHINE AND PERSONAL INJURIES**



## LOADING AND OPERATING PROCEDURES (con't)

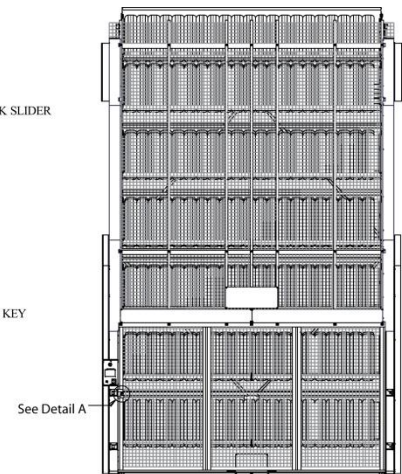
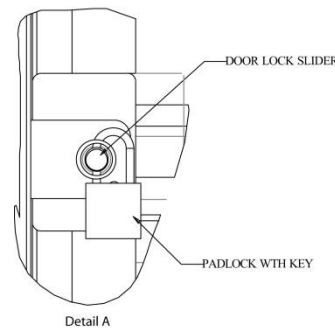
### Opening the Loading Door...

1 To lift the loading door use the handles provided to ensure the loading door is opened correctly. (reference items 1 & 2 below )



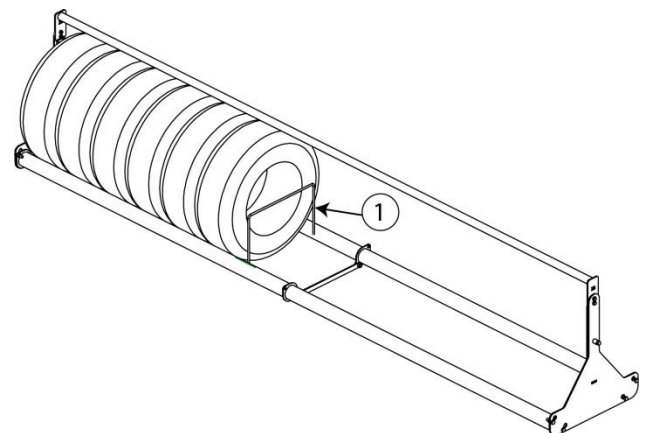
### Locking the Loading Door...

1. To lock the loading door, place lock through door lock slider and firmly close.



### Using the tire divider support guides for the carriers...

1. Squeeze bars together to clamp the support guide to the carrier (1). The support guide prevents the tires from falling over onto the carrier



### **GENERAL OPERATION PROCEDURAL TIPS**

1. When at all possible, rotate the Carousel in the “down” position.
2. Keep the Carousel load balanced at all times.
3. Make sure additional people and objects are clear of the machine.

### **Operating the carousel:**

1. Enter the security code in the keypad and move the carousel up or down to the desired position.
2. If an entanglement or obstruction occurs, reverse the machine’s rotation, and remove obstruction. (See Troubleshooting, next page)
3. If your carousel is equipped with a cutting bar and counter, feed the material to be cut under the counter wheel.
4. Set the counter to “0”.
5. Turn the handle and roll the flooring onto the rollup spool until the desired length has been reached.
6. Cut the flooring and wrap the roll
7. Remove the re-roll tube from the brackets and sit the roll on the cradle arms.
8. Release the fingers on the rollup spool and slide it out of the cut roll of flooring. Replace the re-roller in the cradle arm brackets for next cut.

## **TROUBLESHOOTING**

### **Carousel will not run**

- A. Re-enter the security code
- B. Check if the master switch is on
- C. Check and reset circuit breaker
- D. Make sure the machine load is evenly balanced

### **Motor lugs down or breaker trips**

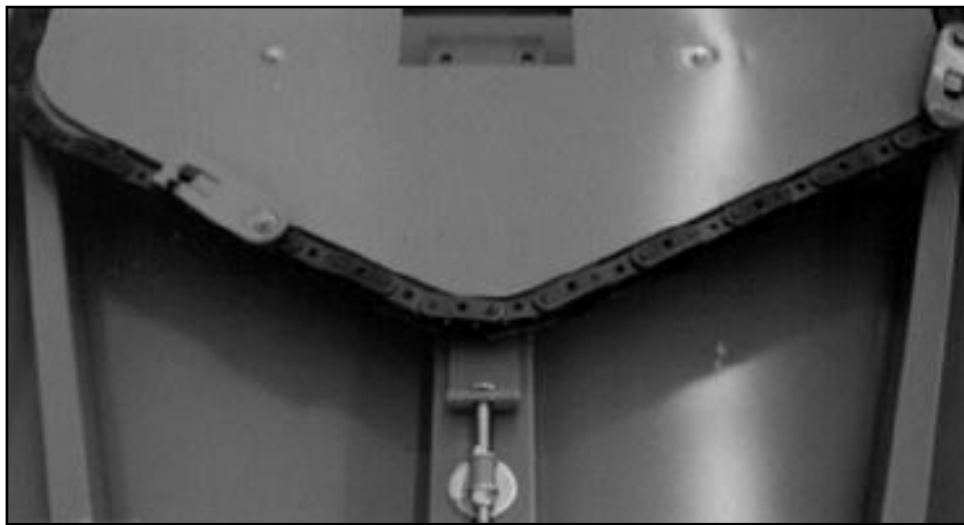
- A. Make sure machine load is evenly balanced
- B. Check and reset circuit breaker

### **Carousel is noisy**

- A. Tighten set screws on pulley and/or tighten belt.  
(replace if necessary)
- B. Check for correct chain alignment.
- C. Oil the Chains (ref. note, page 8)

## **MAINTENANCE**

1. To correct squeaking, oil the chains with lightweight oil. Apply the oil to the chain using an oil soaked sponge and wipe with dry rag to remove excess oil.
2. Check for oil leaks around gearboxes.
3. Inspect the drive chain for wear, proper alignment, and tension. (max. of an 1/8" deflection on drive chain)
4. Inspect the main load chain and tighten it if it is too loose. (with the carousel loaded, the chain should not sag more than 1" from the bottom chain guard. See diagram for location of tightening bolt)
5. Do a visual inspection of hooks and roll pins. The hooks should swing freely and be sure to replace any damaged hooks. (new lock nuts must be used when replacing hooks)
6. Inspect safety latches to ensure they are in good working condition.
7. Carefully inspect all the roller shaft ends for wear or damage. (lubricate with a drop of oil or spray grease)
8. Lubricate the carousel hook bolts once a month by spraying with lithium grease.
9. Check the belt tension on the electric motor. The belt should be tight. To tighten belt, loosen the four bolts on the motor, move the motor down, and then re-tighten the bolts.
10. Inspect snap rings that hold the sprockets in place. Make sure snap rings are fully snapped into position.
11. Inspect all bearings.
12. Ensure the loading bars are in good condition and hung in the proper locations.
13. Check to ensure all covers are in place and are in good condition.



**NOTE:** Oil the chains with light weight oil.  
- apply oil to chain using an oil soaked sponge  
- Wipe with dry rag to remove excess oil.

**Tire Carousel Preventative Maintenance and Inspection List**

Company _____	City _____	State _____	Store No. _____
Serial No. _____	Model No. _____	Time In _____	Time Out _____
Total Time _____		Store Manager _____ (Please Print)	
Date _____		Inspection <input type="checkbox"/>	
Preventative Maintenance <input type="checkbox"/>		Service technician _____	
Service Company _____			

**Mechanical Inspection, motor and gearbox:**

- Inspect motor/gearbox mounting bolts, ensure they are secure
- Check gearbox oil levels and condition, refill as necessary, visually inspect for oil leaks
- Check alignment and tension of motor drive belt, inspect for wear
- Inspect pulley and sprocket set screws to ensure they are tight
- Verify drive chain alignment and proper tension
- Inspect all bearings for wear indications
- Visually inspect remaining fasteners for damage and general condition

**Mechanical inspection, Load chain and sprockets:**

- Visually inspect load chain for wear and damage, oil as required (ref. page 6 note)
- Check the chain connector link cotter pins for wear
- Remove all debris, plastic, carpet, etc. from sprockets

**Visual inspection, hooks and hook connecting hardware:**

- Ensure fasteners are secure and there are no signs of damage or wear
- Check that all hooks swing freely, that there is no binding
- Inspect hook bolts for wear and general condition
- Inspect all hook safety latches for damage and unusual wear indications
- Check roller shafts for wear indications.

**Visual inspection, general operating conditions:**

- Ensure all covers and guarding is in place and secure
- Ensure there are no foreign objects projecting into the machine operating path.

**Visual and mechanical loading bar inspection:**

- Ensure loading bars are in place and chained.
- Visually inspect the loading bar for signs of damage and wear.
- Ensure loading bar stickers are in place.
- Check that rolls are strapped properly (3) per roll.

Comments \_\_\_\_\_

**Please fax completed inspection to 1-204-364-3072.**

## KEYPAD

The machine has been provided with a security keypad. The system has built-in safety features that prevent unauthorized operation of this machine. The keypad has been supplied with factory settings, including the password required to activate the controls.

The following instructions can be used to customize the password:

<u>PRESS</u>	<u>KEY PAD LIGHT</u>
1. 99#	steady red
2. Current code*	flashing yellow
3. 30#	flashing yellow
4. 1#	flashing yellow
5. NEW CODE *	fast flashing yellow
6. NEW CODE *	flashing yellow
7. *	steady red

*Once this sequence is completed, your new password is programmed and should be used to activate the controls.*

### PLEASE NOTE:

The security password protects against unauthorized operation of the equipment.

Factory default setting allows the machine to be idle for 30 seconds before the password expires.

After 30 seconds of machine idle time, the keypad will time out and operator's password must be reentered to activate the controls.

*To reset your keypad to factory settings, please refer to the instructions located on next page.*

## **INSTRUCTIONS TO RESET THE 212e KEYPAD TO FACTORY DEFAULT SETTINGS**

1. Turn the red power switch off.
2. Press and hold both up and down push-buttons at the same time.
3. While holding both the up and down push-buttons turn the red power switch on.
4. Continue to press and hold both the up and down push-buttons until you hear a couple of beeps.
5. Release both of the up and down push-buttons.
6. The yellow light should be flashing
7. Follow the steps below to reset the key pad.

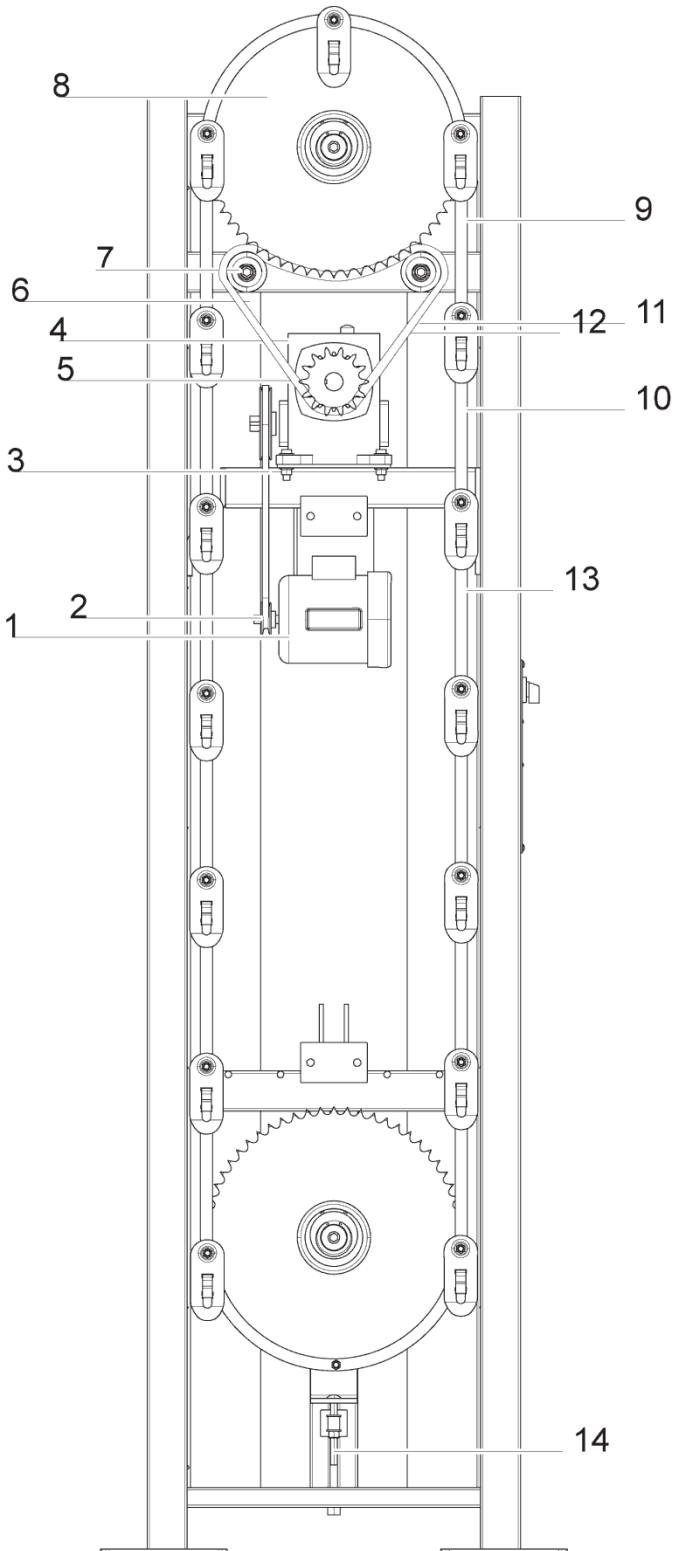
### Press

1. 46#
2. 00000#
3. 00000#
4. \*
5. \*
6. 30#
7. 1#
8. CODE \*
9. CODE \*
10. \*

### Keypad light

- flashing yellow
- flashing yellow
- flashing yellow
- fast flashing yellow
- flashing yellow
- flashing yellow
- flashing yellow
- fast flashing yellow
- flashing yellow
- steady red

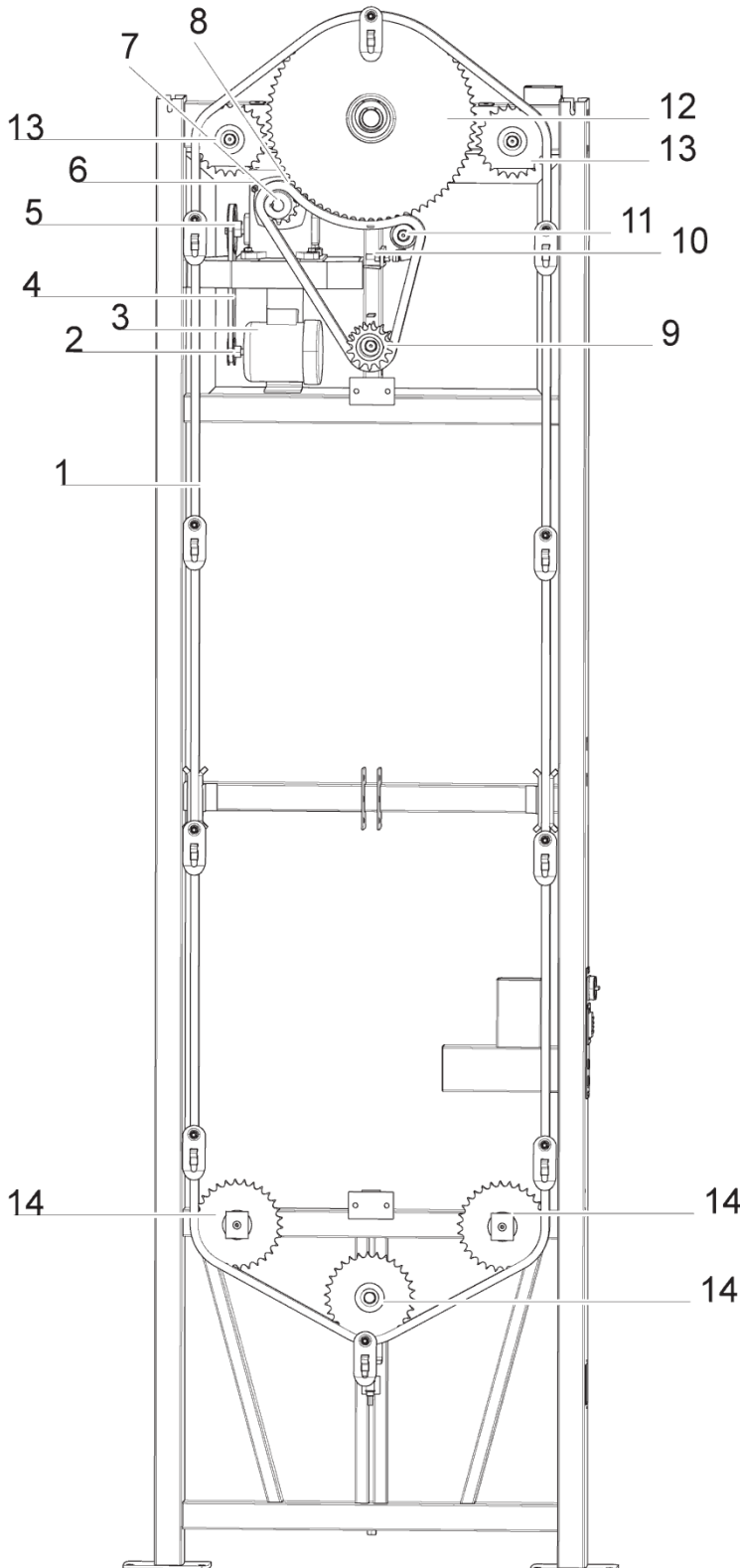
## CAROUSEL PARTS LIST (R20, R24, R30)



<u>Item</u>	<u>Description</u>	<u>Part #</u>
1.	1 HP motor .....	407-0005
2.	Motor pulley BK25 .....	115-0022
	V belt B39 .....	102-0055
3.	Gearbox pulley BK60H .....	115-0034
4.	#80 60/1 ratio gearbox .....	107-0013
5.	Sprocket 80B12 x 1-3/8 Hub Drive .....	120-0136
6.	#80 Drive chain 29 links .....	105-0049
7.	Drive chain idler .....	111-0127
8.	20" #80 x 60 tooth sprocket (2).....	120-0055
9.	20-80 chain 16-14 .....	Please Call
10.	#80 connecting link.....	105-0038
11.	#80 off set link .....	105-0047
12.	20-80 connecting link .....	105-0033
13.	20-80 offset link .....	105-0042
14.	Bottom tightening sprocket mount ...	2-50890



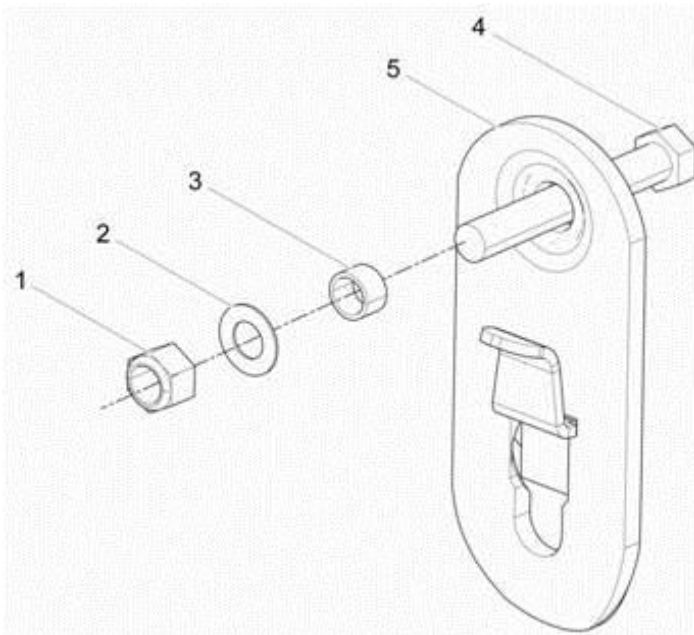
## CAROUSEL PARTS LIST (R39, R45)



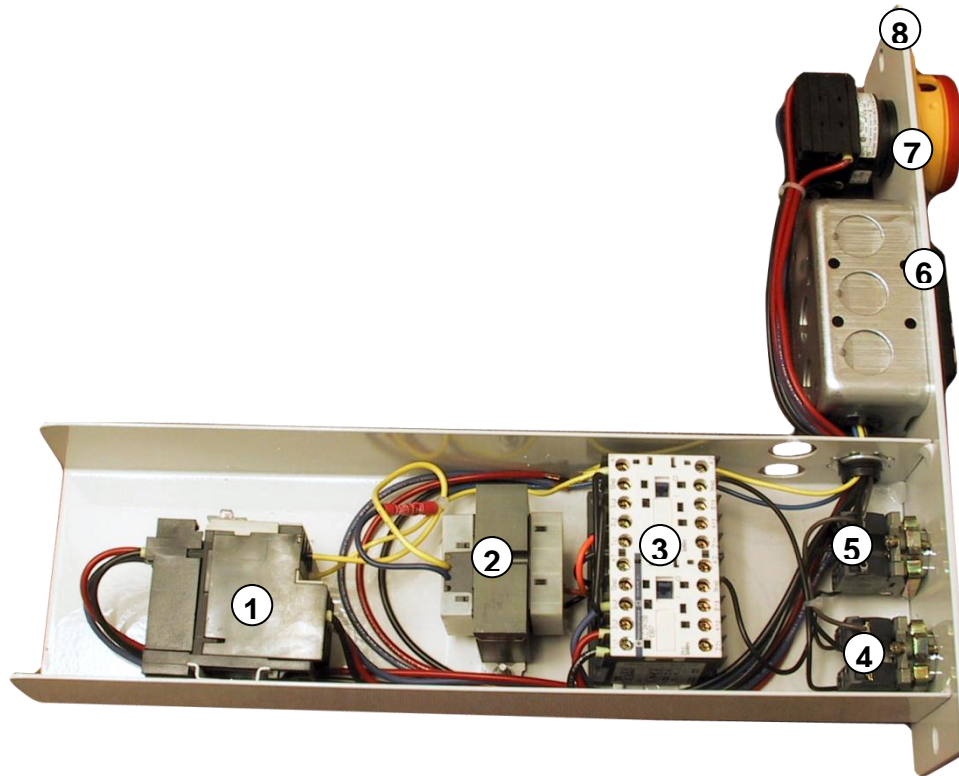
<u>Item</u>	<u>Description</u>	<u>Part #</u>
1.	Main load chain.....	105-0062
2.	Motor Pulley .....	115-0062
3.	1HP, 3 Phase Motor.....	407-0009
4.	B39 V Belt.....	102-0055
5.	Gear Box Pulley .....	115-0033
6.	Gearbox .....	107-0024
7.	Drive Sprocket .....	120-0136
8.	Drive Chain .....	105-0048
9.	Idler Drive Shaft Sprocket .....	120-0136
10.	5/8" x 3" Drive Chain tightening bolt .....	105-0038
11.	Drive Chain Idler .....	2-54642
12.	80-72 Sprocket.....	120-0002
13.	80-24 Sprocket.....	120-0049
14.	80-30 Bottom Sprocket .....	120-0001

**CAROUSEL PARTS LIST (con't)**

<u>Item</u>	<u>Description</u>	<u>Part #</u>
1.	7/16" Steel Lock Nut.....	004-0088
2.	Flat Washer .....	003-0015
3.	Bushing.....	007-0062
4.	7/16" x 3" L9 Bolt.....	001-0212
5.	Hook .....	2-57397



## ELECTRICAL BOX PARTS



<u>Item</u>	<u>Description</u>	<u>Part #</u>
1.	Overload Protection Relay .....	407-0005
2.	208/24 Volt Transformer .....	115-002
3.	480/24 Volt Transformer .....	115-0034
4.	Forward & Reversing Contactor (2HP/208V) .....	107-0013
5.	Forward & Reversing Contactor (3HP/208V) .....	120-0136
6.	Down Push Button .....	105-0049
7.	Up Push Button.....	111-0127
8.	E Bubble –Style Keypad .....	120-0055
9.	Main Power Shut-Off Switch .....	Please Call
10.	Electrical Tray (complete & wired).....	105-0038
11.	13-34 Electrical Tray.....	105-0047
12.	E-Stop Replacement Kit.....	105-0033

## **LIMITATION OF LIABILITY**

1. Vidir makes no warranties whatsoever, either express or implied, oral or written, in fact or by operation of law or otherwise, except as expressly stated in this agreement.
2. Vidir, its officers, directors, agents and servants and its affiliates and their respective officers, directors, agents and servants shall not be liable to you the buyer nor to any other party for any liability, including without limitation strict liability, including liability for loss or damages due directly or indirectly to occurrences or consequences which the material handling machine is designed, nor for any losses or damages, including without limitation economic and consequential losses, or direct or indirect, incidental, exemplary and punitive damages whether in contract, tort or otherwise or any other claims or expenses in any manner resulting, including without limitation liability, losses or damages directly or indirectly from, or connected with, the supply of the material handling machine whether or not supplied pursuant to this agreement, or from the failure to so discover or eliminate.
3. Vidir assumes no liability whatsoever with regard to the Buyer's compliance or fulfillment of its obligations with respect to any part of this manual or any statute, regulation or by-law prevailing, or the Buyer's failure to so comply with or fulfill its obligations.
4. Any decision or action implemented or action taken by you the Buyer in respect of the material handling machine not in strict compliance with this manual is solely the decision of you the Buyer.
5. No supervisory action or services is being provided by Vidir to you as part of your purchase of the material handling machine.
6. Vidir shall not be liable for any loss or damage suffered by you the buyer caused by your failure to follow any instruction in this manual or where such loss or damage is caused by an event, omission or condition not reasonably within the control of the Vidir.