

**Hydraulic Dock Leveler**  
**Edge Mount Series**  
**Model "EFH"**  
**20,000 to 50,000 lbs. Capacity**

**Operation and Maintenance Manual**

This manual applies to dock levelers manufactured on or after 2014/01/15,  
with Serial Number(s) 27865 and greater.

**P/N: 49-0067 Rev. L**

***NORDOCK INC.***

Website: [nordockinc.com](http://nordockinc.com) ~ Email: [sales@nordockinc.com](mailto:sales@nordockinc.com) ~ Toll free: 866-885-4276  
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# Table of Contents

Table of Contents .....	3
Preface .....	4
Problems, Errors and Omissions .....	4
Dock Identification .....	4
Copyright .....	4
Warranty .....	5
Safety .....	6
Labels .....	7
Installation .....	8
New Construction .....	8
Existing Building: .....	8
Electrical Installation .....	8
Dockleveler Installation .....	9
Operation .....	10
Standard Operation .....	10
Maintenance and Lubrication .....	11
Acceptable Lubricants and Oils .....	12
Hydraulic .....	12
Grease .....	12
Light Oil .....	12
Hydraulic Adjustment .....	12
Parts and Service Tables .....	13
Section 1 – Back Plate Assembly .....	14
Section 2 – Deck Assembly .....	15
Section 3 – Lip Assembly .....	16
Section 4 – Hydraulic Cylinder .....	17
Section 5 – Hydraulic Lines and Fittings .....	17
Section 6 - Power Pack and Related Hydraulic Components .....	18
Section 7 – Bumpers and Boxes .....	19
Section 8 – Control Panels .....	19
Wiring Diagrams .....	20

# Preface

## **PLEASE READ AND UNDERSTAND THIS MANUAL COMPLETELY**

This manual gives detailed information and instruction on how to operate and maintain your equipment correctly. Failure to do so could result in personal injury, and/or equipment damage. Please consider this manual a permanent part of the unit and keep it with the dock leveler for reference whenever needed.

If you have any questions about this manual, the dock leveler, it's components, or our products and services, please call us at 1-866-885-4276 and we will be happy to assist you. With proper care and maintenance, this dock leveler is designed to work effectively and efficiently for many years to come.

## Problems, Errors and Omissions

This manual has been prepared with the utmost care and attention to detail as to ensure accurate parts and service information should the need arise. Nordock Incorporated believes this manual will provide the operators of this unit all the necessary information required to operate and maintain it for many years. If you believe there is an error, if you have a problem following the guidelines, or if there is information that you feel is missing from this manual, please contact us at the above number so we may attend to the issue immediately.

## Dock Identification

It is very important that in order to provide the best possible service from Nordock Inc., please include the model, serial number and capacity of the dock leveler whenever you contact us. Below is the same serial number decal that will be found on the left side frame rail (standing on the dock, facing the lip). Please fill in the information from the decal on the dock leveler to this area. This will greatly reduce the possibility of improper parts being shipped to you.

<b>NORDOCK®</b>	
<b>DESCRIPTION</b>	XX XX XX000 LBS
<b>SERIAL #:</b>	XXXX
866-885-4276 ~ WWW.NORDOCKINC.COM MADE IN CANADA	

## Copyright

This manual is copyright to Nordock Incorporated. All information, text, drawings, and technical data contained herein are for reference only. No part of this manual may be copied, altered, or stored on electronic media, and cannot be revealed to others for the purpose of competition.

## Warranty

Nordock Inc. expressly warrants that all of its manufactured product shall remain free of defects in material and workmanship under normal use for a period of one-year from the date of delivery to the purchaser. The purchaser must maintain and operate the product in accordance with proper procedures. In the event the product proves defective in material or workmanship, Nordock Inc. will at its option either:

1. Replace the product or the defective portion thereof without charge to the purchaser; or,
2. Alter or repair the product on site or elsewhere, as Nordock Inc. may deem advisable, without charge to the purchaser.

The warranty stated herein is that offered by Nordock Inc. and expressly disclaims all implied warranties including those of merchantability and fitness. This warranty does not cover any failure caused by improper installation, misapplication, overloading, abuse, negligence, or failure to maintain and protect the equipment from vehicle impact. Nordock Inc. or its representative assume no responsibility or liability for any incidental or consequential damages of any kind including loss of use of any equipment, damage or failure resulting from the use of unauthorized replacement parts or equipment modification, or damages resulting from the misuse of the equipment.

Nordock Inc. warranties extend only to the product itself. Nordock Inc. disclaims all liability of any kind arising out of the workmanship, methods and materials used by the installer or premature product wear, product failure, property damage or bodily injury arising from improper installation.

These warranties as stated herein are the exclusive remedies for all claims.



## Safety

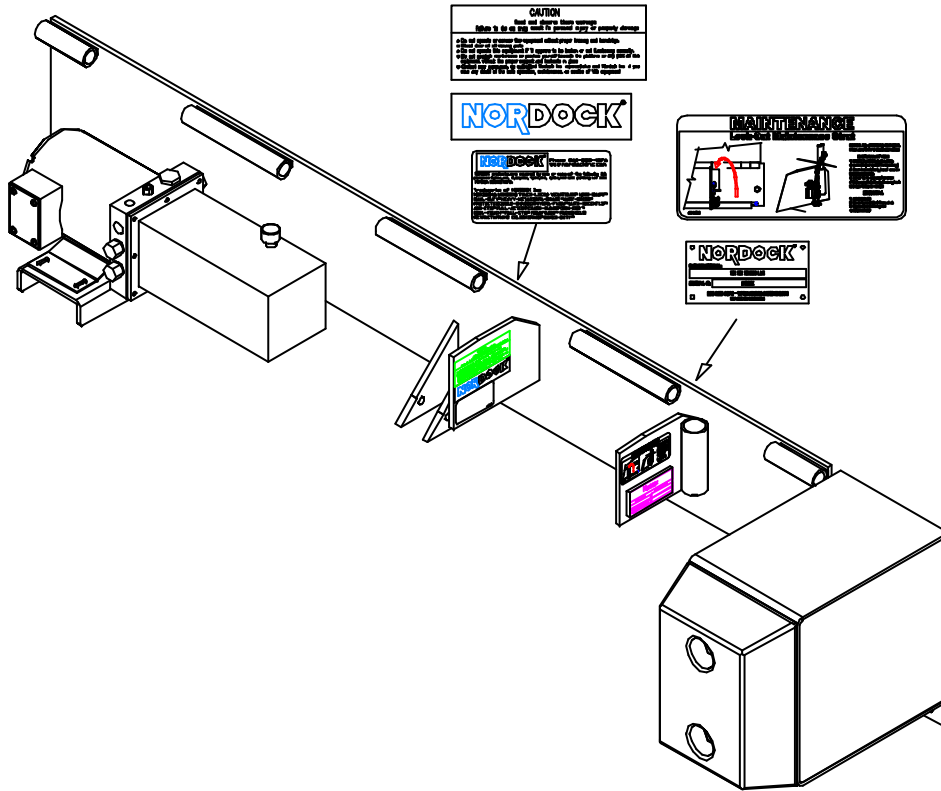
The operators of this unit must read these safety practices before installing, operating or servicing the dock leveler. Failure to follow these safety practices may result in bodily injury, property damage or death.

Read and follow the operating instructions contained in this manual before operating the dock leveler. If you do not understand the instructions, contact your supervisor for explanation and instruction on the safe operation of this unit. The following guidelines are to be used in conjunction with all laws, governances and codes in effect where the dock leveler is installed.

1. Inspect the dock leveler to ensure that all parts are undamaged and in good working order. If the dock leveler does not appear to function properly, or if it looks damaged, **DO NOT USE THE DOCK LEVELER**. Section off the dock area, and notify your supervisor and safety representative.
2. Be sure that the tires of the truck are properly chocked, or that the truck is properly locked in place by a functioning restraining device before loading or unloading.
3. Do not stand on the dock leveler when it is in motion. Stand on the floor behind the hinge as the deck rises. Ensure no one is near the lip, as it will extend as the deck lowers, and will fold quickly.
4. Do not operate the dock leveler with equipment, material, or people on the ramp or lip, and never use a fork truck or any type of material handling equipment to lower the ramp.
5. Keep hands and feet clear of hinges at all times. Do not attempt to raise the ramp or lip manually. If the dock leveler fails to operate using the procedures contained in this manual, do not use the dock leveler. Contact Nordock Inc. or an authorized service representative for service.
6. Whenever any maintenance or repair is to be performed on the dock leveler, barricade the area around the deck, and place clear signage on the perimeter that the dock is not to be operated.
7. Ensure the dock leveler is clear of all material, equipment, or people before the chocks are removed, or the truck is released from the restraint.
8. After loading or unloading, make sure the dock has been returned to its level, stored position. Push the 'Raise' button to lift the dock leveler until it clears the bed of the truck, then release to lower the dock back to it's stored position.
9. If you have any questions, contact your supervisor or your local Nordock Inc. representative.

## Labels

The labels and decals on the dock leveler must be kept in clean, legible condition at all times. The following shows the decals and their placement on the dock leveler. Please check their condition on a daily basis, and replace them immediately if they become unreadable. The replacement decal kit (P/N 42-0392) is available by contacting your local Nordock representative or by calling 1-866-885-4276.

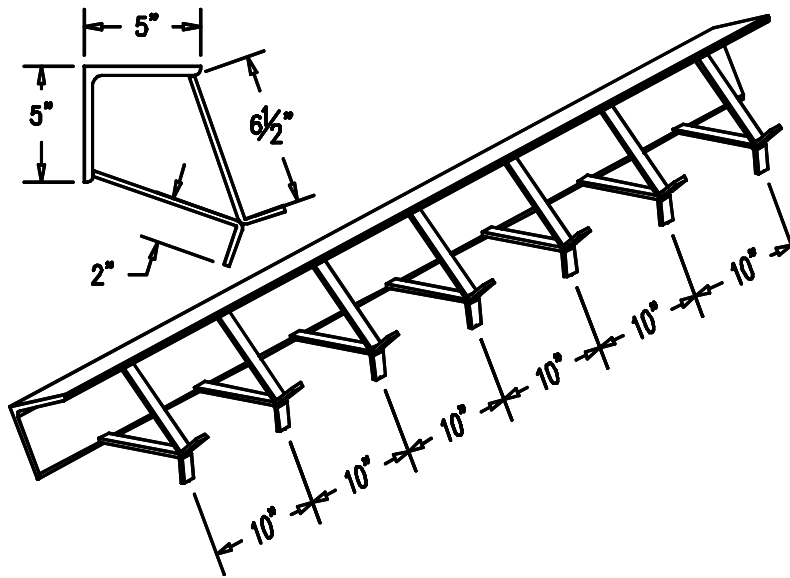


# Installation

## New Construction

When installing the dock leveler in new construction, there are certain minimum requirements that must be followed to ensure proper mounting. Failure to meet these requirements may cause improper operation, dock failure, or personal injury. Nordock Inc. will assume no liability or warranty for damage caused by improper installation.

The base angle that will mount to the back plate of the dock leveler must be centered in the door opening and fully embedded in concrete using 5" x 5" x 3/8" angle, with anchoring spaced 10" apart from the center of the angle to the outermost edges of the mounting angle:



## Existing Building:

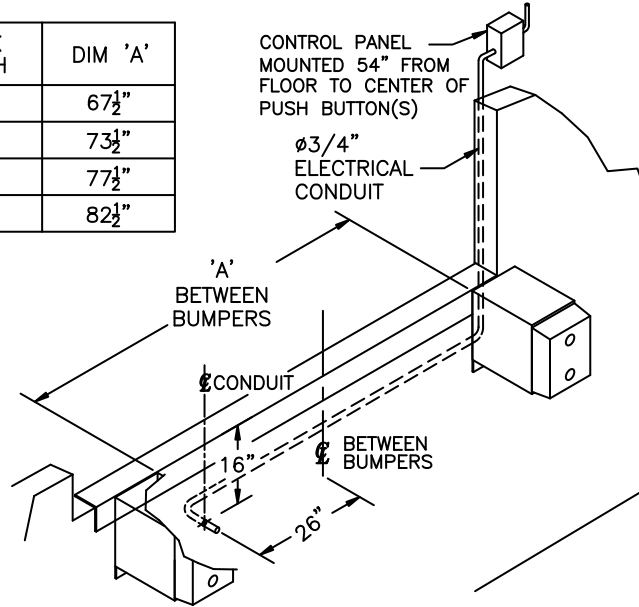
If the dock leveler is to be installed in an existing building, the base angle and surrounding concrete must be in good condition. Excessive rust, poor concrete condition, or if the mounting angle is pulling away from the concrete constitutes substandard conditions, which must be rectified before the dock leveler can be installed. Nordock Inc. will assume no liability or warranty for damage caused by improper installation.

## Electrical Installation

Mount and wire control box as shown on next page.

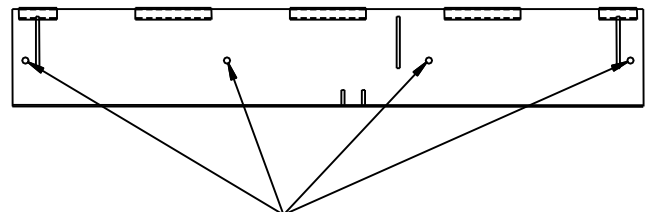
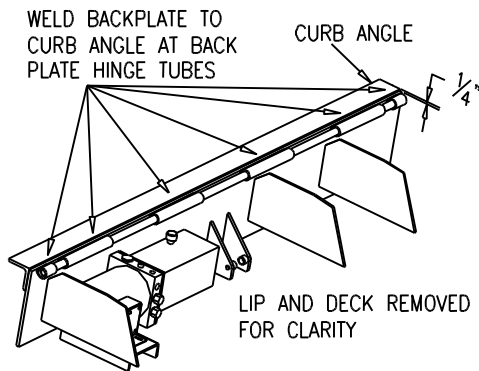


DECK WIDTH	DIM 'A'
66"	67½"
72"	73½"
78"	77½"
83"	82½"



## **Dockleveler Installation**

1. Lift the dock leveler into position centered in the door opening, leaving the back plate 1/4" below the mounting angle. Ensure the unit is level.
2. Tack-weld the sides of the angle to hold the unit in place. Then stitch weld the back plate to the mounting angle the full length of the hinge tubes as shown below:



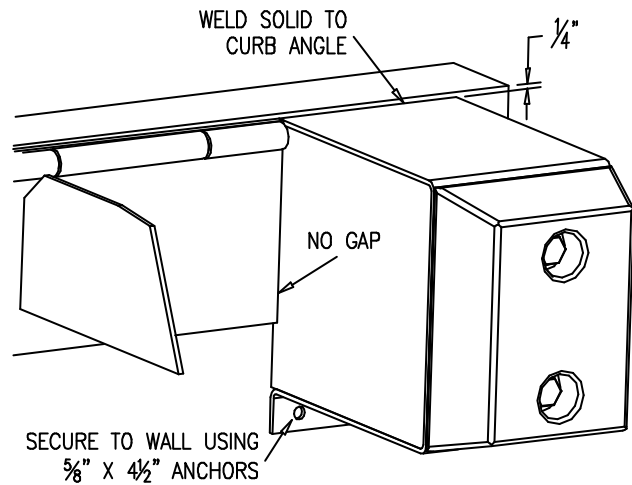
DRILL AND ANCHOR USING  
 5/8" X 4 1/2" CONCRETE ANCHORS  
 4 PLACES - 78" & 83" WIDE UNITS  
 3 PLACES - 66" & 72" WIDE UNITS

3. Drill and anchor the dock leveler to the concrete wall using 5/8" x 4 1/2" wedge anchor bolts (not supplied).
4. Lower the lip and deck to their parked position. If the unit is hydraulically powered, it may now be wired according to the wiring diagram.

**Note:** It is the installer's responsibility to complete any paint touch-up and dock area clean up that may be required.

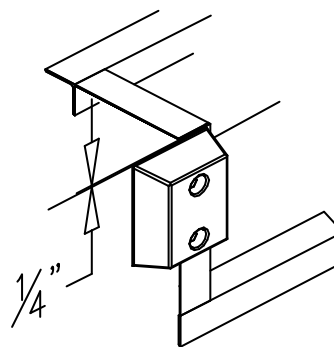
## **Bumper Installation:**

For surface mounted (no pit) docks with bumper box extensions, mount the boxes to each end of the back plate as shown. Keep the top of the box 1/4" below the curb angle and weld solid across. Fasten the bottom to the wall with 5/8" x 4 1/2" wedge anchors (not supplied).

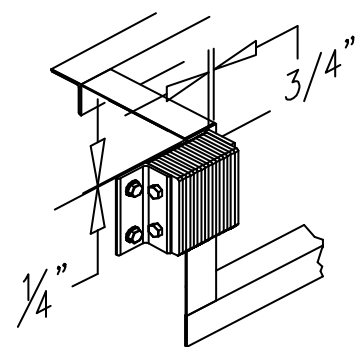


**MOLDED BUMPER AND BOX**

For pit mounted and special installations, mount the bumpers at each end of the pit or dock, as shown. Keep the top of the bumper 1/4" below the curb angle or floor level. Fasten all bumpers to the wall with 5/8" x 4 1/2" wedge anchors (not supplied).



**MOLDED BUMPER, NO BOX**



**LAMINATED BUMPER, NO BOX**

Additionally, for laminated bumpers, keep the bolt heads clear of the dock or pit, generally 3/4". Weld wherever possible to the curb steel.

## **Operation**



### **WARNING**

Before operating or maintaining the dock leveler, read and follow the safety practices contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage.

### **Standard Operation**

1. Push and hold the 'Raise' button on the control panel to raise the deck and lip. Release the button when the lip has risen approximately halfway. The lip does not have to extend fully to properly contact the truck bed.

Proceed with loading or unloading.

2. To return the dock leveler to the stored position, push the 'Raise' button until the lip clears the bed. Do not allow the lip to re-extend, as it will rest on the truck again.
3. Ensure the deck has properly rested on the deck stops.

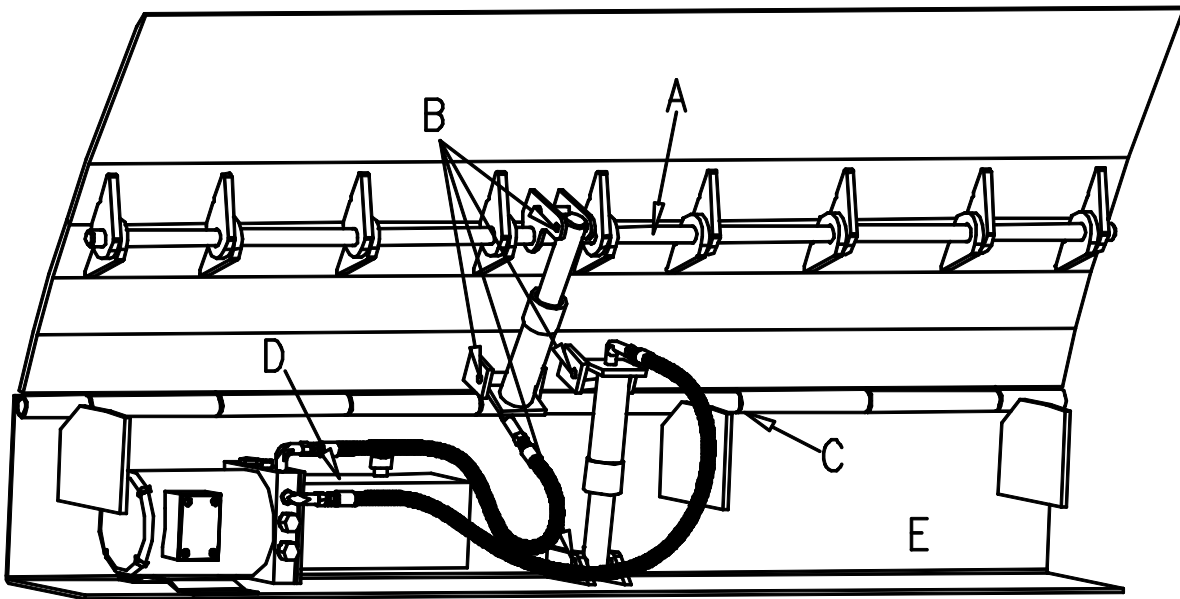
**Note:** If the truck pulls away prematurely, the dock will automatically lower to the parked position. Ensure that the dock has rested in the proper position, and that the lip is not resting on the edge of the pit wall (if so installed).

## Maintenance and Lubrication

 **WARNING**

Before operating or maintaining the dock leveler, read and follow the follow the safety practices contained in this manual. Failure to follow the guidelines in this manual and those in effect in the workplace can result in serious bodily harm and equipment damage

**Note:** Lubricate all shown points using high-grade light oil, with water repelling and good adhesion qualities.



Item	Lubrication	Adjustment	Cleaning
-A- Lip Hinge	Every 90 days Using grease	None	Remove debris as required
- B - Cylinder Pins	Every 90 days Using light oil	None	Remove debris as required
- C - Deck Hinge	Every 90 days Using light oil	None	Remove debris as required
- D – Hydraulic Oil Reservoir	Check level daily Change oil yearly	None	Remove and clean strainer and magnet yearly
-E- Base Plate Area	None	None	Every 90 Days or as required to remove debris

## **Acceptable Lubricants and Oils**

### **Hydraulic**

Oils used in the hydraulic system must meet minimum ISO grade 22 standard. E.G.:

COMMERCIAL OIL MULIT-VIS MV22  
 MOBIL AERO HFA (49011)  
 EXXON UNIVIS GRADE J13  
 TEXACO AIRCRAFT OIL #1537BB  
 U.S.OIL CO. #5606 (LOW TEMP)  
 SHELL TELLUS T22

### **Grease**

Grease used for hinges must meet a minimum EP-2 grade. E.G.:

CHEVRON DURA-LITH EP-2

### **Light Oil**

Light oils used should have a good penetration and adhesion qualities.

## **Hydraulic Adjustment**

**Note:** Power units are set at the factory to optimum performance. Adjustment is rarely necessary and should only be performed by a qualified hydraulic technician.

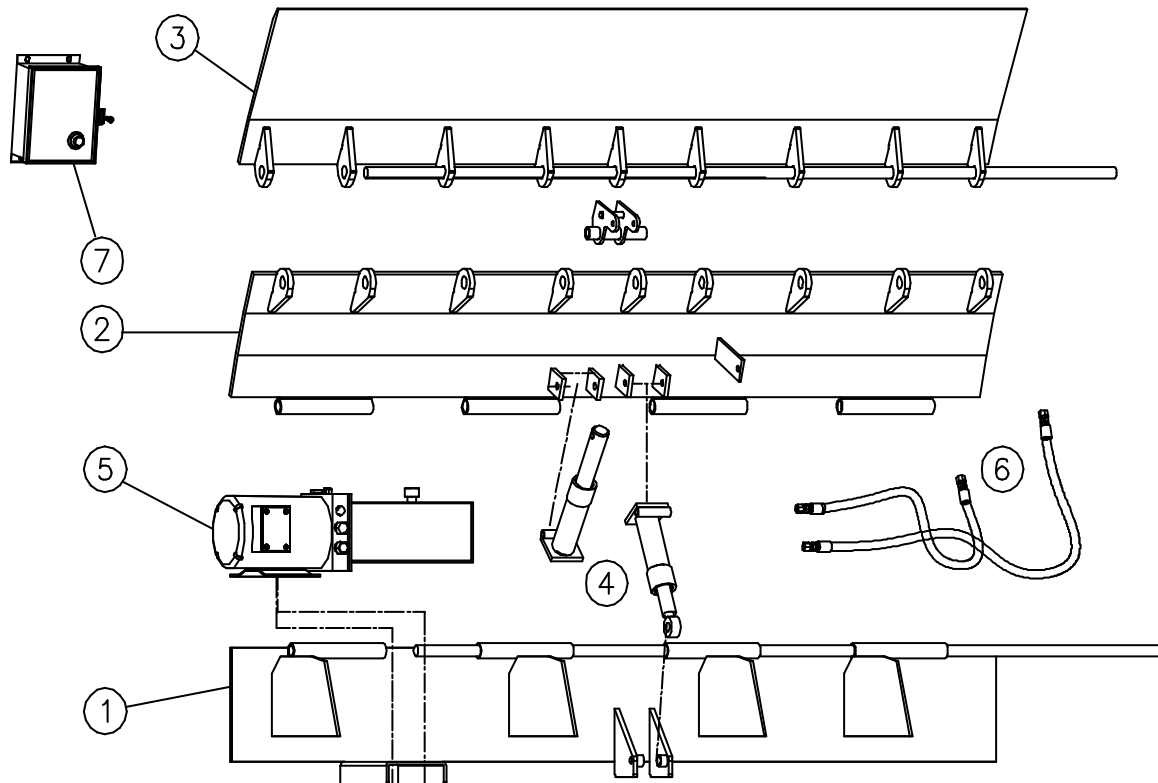
To make adjustments: Remove the outer cap, as required, and loosen the locknut.  
 Use the chart below as an adjustment guide.

Item numbers below refer to Parts and Service Section 6 – Power Pack

Item	Name / Function	Adjustment
10	<b>Sequence Valve</b> (Blue Cap) -Sends flow to the lip cylinder when deck is at full height	-Required if lip extends before the deck raises. -Turn adjustment screw clockwise to control the lip extend. -Adjust in 1/8 turn increments.
11	<b>Pressure Relief Valve</b> (Red Cap) -controls maximum pressure	-Required for motor stalling problems. -Turn counter-clockwise (loosen) to lower relief pressure. -Adjust in 1/8 turn increments.
12	<b>Flow Control Valve</b> -controls downward speed of deck.	-Turn adjustment screw clockwise (tighten) to slow speed or turn counter-clockwise (loosen) to increase speed. -Adjust in 1/8 turn increments.

For all- Retighten locknut and replace cap, if applicable, after adjustment is complete.

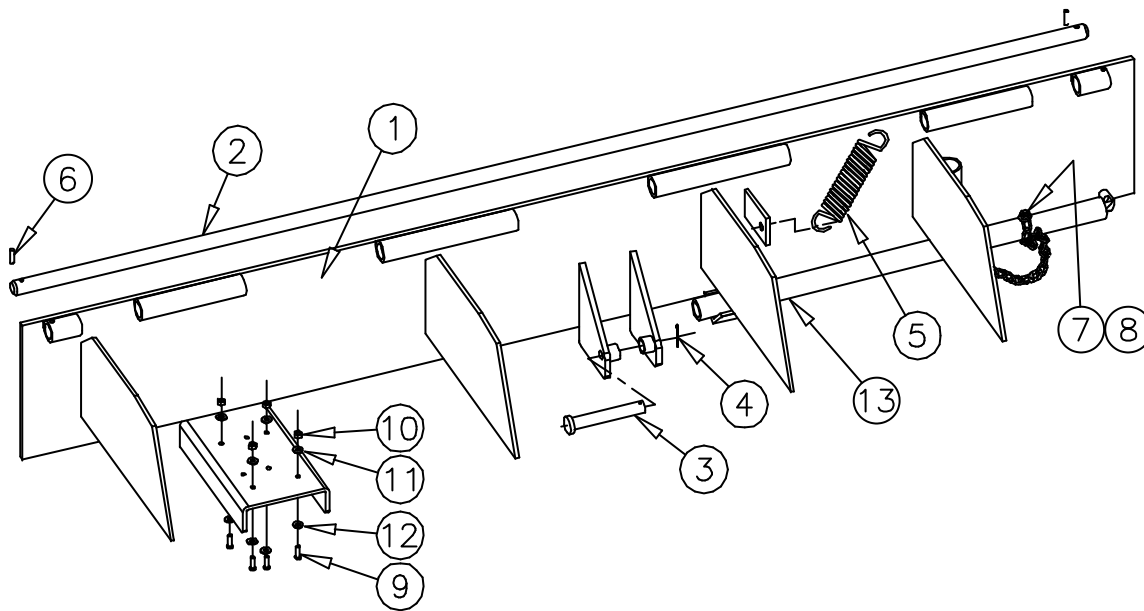
## Parts and Service Tables



Item Number/ Section	Description
1	Base Assembly
2	Deck Assembly
3	Lip Assembly
4	Cylinders
5	Hydraulic Pumps
6	Hydraulic Hoses
7	Control Panels

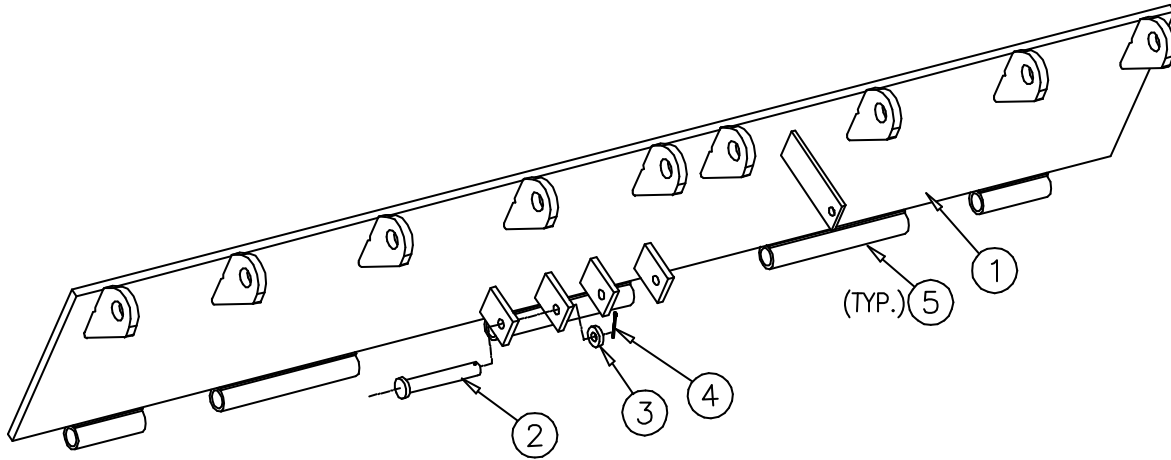
**Note:** Not all parts and weldments are noted in this manual. Only those that are serviceable and /or replaceable will be listed. For additional information on those parts not included in this manual, please contact Nordock. Remember to make note of the model and serial number of the unit for accurate parts and service.

## Section 1 – Back Plate Assembly



Item	Qty.	Description / Model	P/N	Note
1	1	Back Plate Weldment 20-50K 66" 72" 78" 83"	42-0817 42-0818 42-0819 42-0820	
2	1	Hinge Rod 66" 72" 78" 83"	43-0302 43-0154 43-0155 43-0156	
3	1	Cylinder Bottom Pin, 3/4" x 5 1/4" long	42-2901	
4	1	Cotter Pin, 3/16" x 1 3/4" long	13-0304	
5	1	Spring, 8" closed	13-0565	
6	2	Spring Pin, 1/4" x 2"	13-0555	
7	1	Washer, 1/4" Fender, Steel, Plated	13-0271	
8	1	Screw, 1/4-14 x 1, Tek, Hex Head, Plated	13-0273	
9	4	Bolt, Hex, 1/4" – 20 UNC x 1"	13-0623	
10	4	Nut, 1/4" – 20 UNC, Plated	13-0270	
11	4	Washer, 1/4" SAE Flat	13-0272	
12	4	Washer, 1/4" Lock	13-0335	
13	1	Maintenance Stand	43-1232	

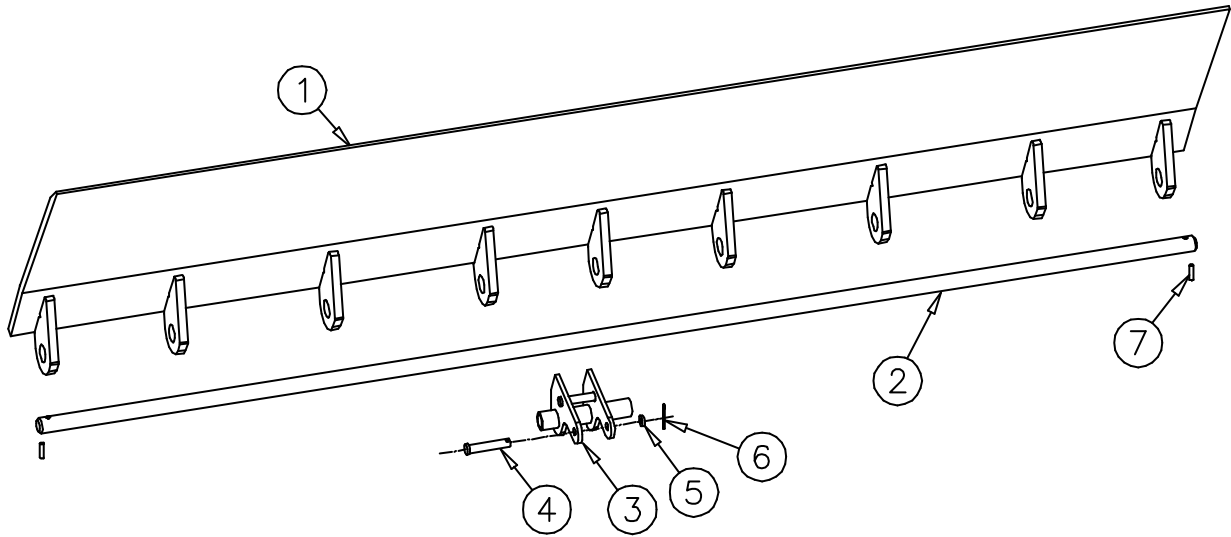
## Section 2 – Deck Assembly



Item	Qty.	Description / Model		P/N	Note	
1	1	Deck Weldment	20K	66"	42-0704	
				72"	42-0705	
				78"	42-0706	
				83"	42-0707	
			30K	66"	42-0708	
				72"	42-0709	
				78"	42-0710	
				83"	42-0711	
			40K	66"	42-0712	
				72"	42-0713	
				78"	42-0714	
				83"	42-0715	
			50K	66"	42-0716	
				72"	42-0717	
				78"	42-0718	
				83"	42-0719	
2	2	Pin, Cylinder Mounting, 1/2" dia. x 4 1/2" long		13-3672		
3	2	Washer, 1/2"		13-0267		
4	2	Cotter Pin, 1/8" x 1"		13-0171		
5	5	Grease Fitting, 3/16" Drive in		13-0655		

NOTE: Items 2,3 & 4 are for Lip and Lift cylinder mounting

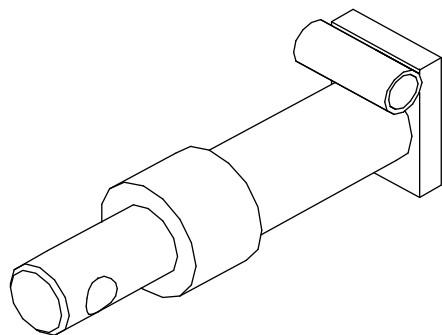
### Section 3 – Lip Assembly



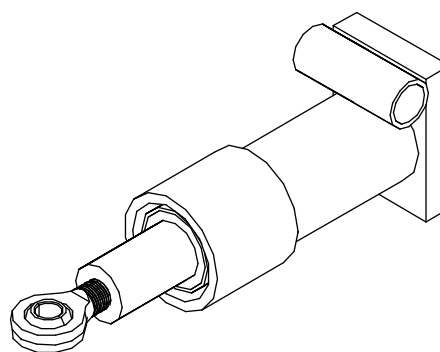
Item	Qty.	Description / Model						Note	
1	1	Lip Weldment		P/N, Deck Width					
		Cap.	Length	66"	72"	78"	83"	83"T	
		20K	16"	42-0605	42-0606	42-0607	42-0608		
			18"	42-0609	42-0610	42-0611	42-0612		
		30K	16"	42-0613	42-0569	42-0614	42-0615	42-0979	
			18"	42-0616	42-0617	42-0618	42-0619		
		40K	16"	42-0668	42-0669	42-0670	42-0671	42-1544	
18"	42-0672		42-0673	42-0674	42-0683	42-1584			
50K	16"	42-0676	42-0677	42-0678	42-0679				
	18"	42-0680	42-0681	42-0682	42-0675				
2	1	Hinge Rod		43-0303	43-0148	43-0149	43-0150		
							P/N		
3	1	Lip Cam 20-50K, 6 3/4" long					42-0822		
4	1	Clevis pin, 1/2" x 2 1/2" long					13-1099		
5	1	Washer, 1/2" flat					13-0267		
6	1	Cotter Pin, 1/8" x 1" long					13-0171		
7	2	Spring Pin, 1/4" x 2"					13-0555		



## **Section 4 – Hydraulic Cylinder**



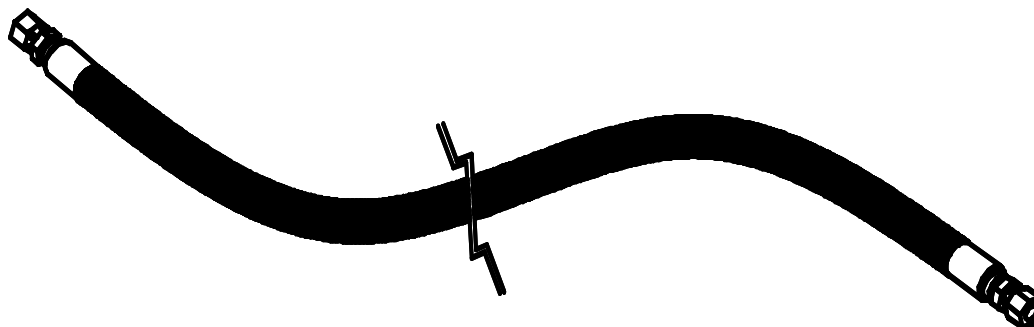
LIP CYLINDER



LIFT CYLINDER

Ram Dia.	Length	Description / Model	P/N	Note
1 1/2"	All	Seal Kit	C3-0025	
		Bushing, Oilite, 1/2"ID x 5/8OD x 5/8"Lg	13-1502	
	7 1/2" closed	Lip Cylinder, 4 3/4" Stroke	C1-0019	
	8 7/8" closed	Lift Cylinder, 5 1/16" Stoke, with Rod End Bearing	C1-0084	
Lift Cylinder Bearing, Spherical Rod End, 3/4"		13-0567		

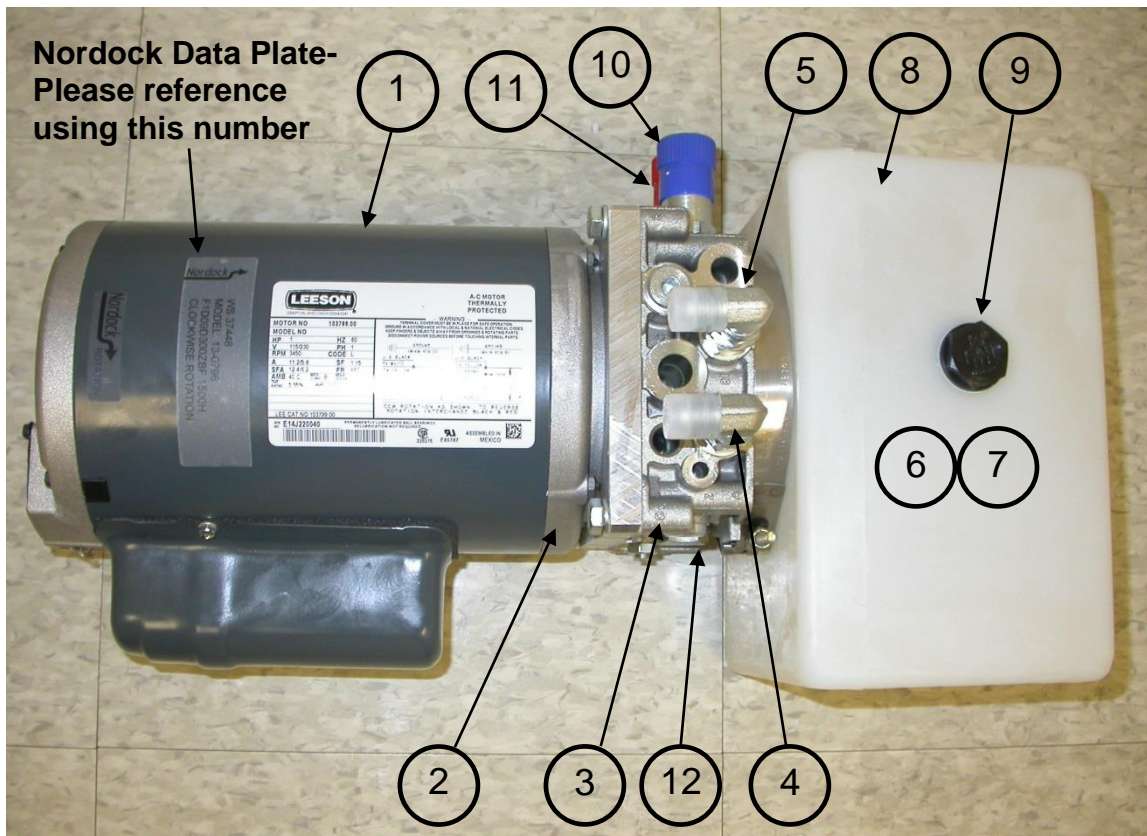
## **Section 5 – Hydraulic Lines and Fittings**



Dock Width	Hose Dia.	Description / Model	P/N	Note
66"	1/4"	Deck Lift, 38" long	42-2290	
		Lip, 33" long	42-2291	
72"	1/4"	Deck Lift, 38" long	42-2290	
		Lip, 33" long	42-2291	
78"	1/4"	Deck Lift, 41" long	42-2292	
		Lip, 36" long	42-2293	
83"	1/4"	Deck Lift, 41" long	42-2292	
		Lip, 38" long	42-2290	
Optional Remote Mount Power Pack, standard length:				
All	3/8"	Deck Lift & Lip, x 20'-0" long (2 -#6 hoses, 2 str. ends)	42-1545	

**Note: All hoses except remote mount are #4 with #6 FJIC straight ends.**

## Section 6 - Power Pack and Related Hydraulic Components



Item	Qty.	Description / Model		P/N	Note
		Complete Power Pack Assembly (Pts 1-12 below)	115 / 230 V 1 Ph 230 / 460 V 3 Ph 575 V 3 Ph	13-0796 13-0797 13-0798	
<b>Power Pack Components:</b>					
1	1	Drive Motor	115 / 230 v. 1 PH 230 / 460 v. 3 PH 575 v. 3 Ph		1
2	1	Motor Coupler	Standard Duty		
3	1	Manifold Assembly	Standard Duty		
4	1	Hydraulic Fitting, 90° 3/8" FNPT x #6MJIC, Deck Lift Port		13-0421	
5	1	Hydraulic Fitting, 90° 3/8" FNPT x #6MJIC, Lip Ext. Port		13-0421	
6	1	Pump Assembly (Inside Tank)			
7	1	Oil Pickup Screen and Tube (Inside Tank)			
8	1	Hydraulic Oil Reservoir		13-3598	
9	1	Filler / Vent Cap			
10	1	Sequence Valve Cartridge		13-2419	
11	1	Pressure Relief Valve Cartridge		13-3332	
12	1	Flow Control Valve		13-3341	
<b>Optional Remote Power Pack Mounting</b>					
13	1	Wall Mount Bracket, not shown		43-0428	

**Note 1 – Consult factory when ordering individual power pack components.**

## **Section 7 – Bumpers and Boxes**

Item	Qty.	Description / Model	P/N	Note
<b>Standard</b>				
1	2	Bumper, Molded 4" x 10"	21-0005	
2	2	Bumper Box, 10" x 14" x 13 1/2" long	61-0013	
3	4	Nut, 5/8" NC-11, plated, (for molded bumper only)	13-0289	
4	4	Washer, 5/8" flat, plated, (for molded bumper only)	13-0952	
5	2	Optional Bumper, Laminated, 4 1/2" x 10" long, FF-410-8	61-0027	
<b>Optional 20" Laminated type:</b>				
4	2	Bumper, Laminated, 4 1/2" x 20" long, FF-420-8	61-0042	
5	2	Bumper Box, 10" x 14" x 20 1/2" long	61-0096	
<b>Optional 20" Steel Face or Spring type:</b>				
6	2	Steel Spring Bumper, L and R	61-0012	
7	2	Steel Face Bumper, 5" x 20" long, FFS-520-8	61-0069	
8	2	Bumper Box, 10" x 13" x 20 1/2" long	61-0125	

## **Section 8 – Control Panels**

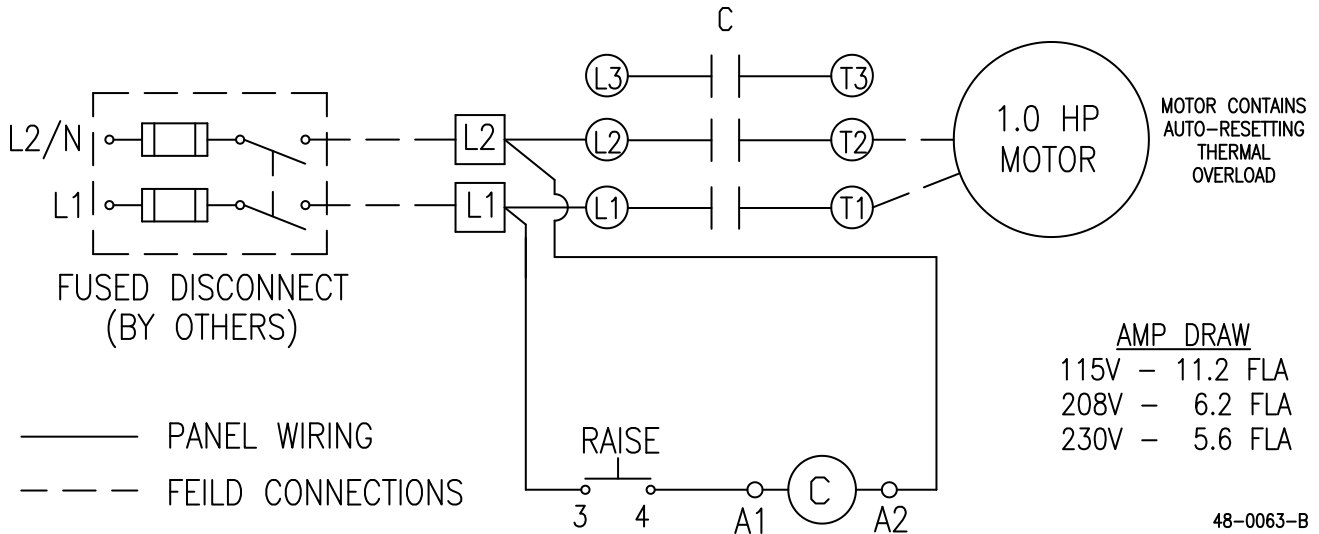
Volts	Phase	Description / Style	Control Panel	Wiring Diagram	Note
115	1	Standard Panel / Single Pushbutton	13-3767	48-0063	
208/230	1	Standard Panel / Single Pushbutton	13-3768	48-0063	
208/230	3	Standard Panel / Single Pushbutton	13-3769	48-0062	
460	3	Standard Panel / Single Pushbutton	13-3770	48-0062	
575	3	Standard Panel / Single Pushbutton	13-3771	48-0062	

## Wiring Diagrams

The following wiring diagrams may be wired in conjunction with other systems used with the dock leveler. Please consult Nordock Inc. or a qualified electrician before performing any work on the control panel or its components.

### Single Phase 1 Button 110v-220v – Starter Only

42-0063-B



### 3 Phase 1 Button 208v-575v – Starter Only

42-0062-C

