Model EFH Owner's Manual

Electric - Hydraulic Edge of Dock Leveler



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www.nordockinc.com



DO NOT install, operate or service product unless you have read and understand the Safety Procedures, Warnings, Installation and Operating instructions contained in this manual. Failure to do so could result in serious injury and/or death.

Safety Procedures



WARNING: Read and understand all safety practices and operating instructions Before installing, operating or servicing the dock leveler. Failure to follow the safety practices and operating instructions may result in property damage, serious bodily injury and/or death.

If you do not understand the safety procedures or the instructions, ask your supervisor to explain the safety procedures and/or teach you how to use the dock leveler.



CAUTION: The installer and/or operator MUST be very familiar with the operation, function and various parts of the NORDOCK Hydraulic Edge of Dock Leveler PRIOR to installation and/or operation. If this is not the case, it is IMPERATIVE that the installer and/or operator read, and fully understand, the entire contents of this manual. **Be certain to read and understand all warning and caution statements contained in this manual prior to any installation, operation or servicing of this unit.**

1 Do not operate this equipment while under the influence of drugs or alcohol.

2 Do not stand in the driveway between the dock leveler and a truck backing or pulling away.

3 Be sure the truck wheels are chocked, or the truck is held in place by a restraining device, before attempting to load or unload the truck.

4 Do not use the dock leveler if it looks broken or does not seem to work right. Tell your supervisor immediately.

5 Do not operate the leveler with equipment, material or people on the platform and/or lip or in front of the leveler.

6 Be certain that equipment, material or people are not on the dock leveler before allowing a truck to pull out.

7 Keep clear of the dock leveler when it is moving. Never place your hands, arms, feet, or legs in the position where a moving dock leveler or a moving load could cause injury. **If in doubt, do not do it!**

8 If the dock leveler is not working properly, according to the operation instructions in this manual, **do not use the dock leveler.** Contact your authorized NORDOCK representative.

9 Never attempt to work under the dock leveler, for service or repair, without proper placement of safety bracing and dock floor barricades.

10 Damage to the dock leveler, personal injury or death can result from abuse and/or negligent use of this equipment.

11 If you have any questions, or if a malfunction occurs which is not understood, ask your supervisor to contact your authorized NORDOCK representative for assistance PRIOR to attempting any corrective measures.



THIS IS THE SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO AVOID POSSIBLE INJURY AND/OR DEATH.



INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY AND/OR DEATH.



KEEP THIS MANUAL AND ALL SAFETY PROCEDURES IN A SECURE LOCATION WITH EASY ACCESS.



WARNING! READ AND UNDERSTAND THIS ENTIRE MANUAL PRIOR TO OPERATING.



WARNING! A DOCK LEVELER CAN BE A POTENTIAL THREAT TO PERSONS AND PROPERTY, IF NOT USED PROPERLY. SAFE OPERATION IS THE RESPONSIBILITY OF THE OPERATOR.



WARNING! DO NOT ENTER THE AREA IN FRONT OF OR BELOW THE DOCK LEVELER. SERIOUS PERSONAL INJURY AND/OR DEATH MAY RESULT.



WARNING! DO NOT ATTEMPT TO INSTALL, MAKE REPAIRS OR ADJUSTMENTS. ONLY A TRAINED AND AUTHORIZED SERVICE TECHNICIAN SHOULD PERFORM REPAIRS OR ADJUSTMENTS. ONLY A QUALIFIED CONTRACTOR/SUB-CONTRACTOR SHOULD PERFORM THE INSTALLATION PROCESS. CONTACT YOUR LOCAL NORDOCK DEALER FOR ASSISTANCE.

SECTION 1

INSTALLATION INSTRUCTIONS
RECEIVING AND HANDLING

RECEIVING:

WARNING

WARNING! Use caution when unbanding the EOD Leveler. Keep hands clear of pinch points and wear appropriate safety attire - Glasses, Gloves, and Work Boots.

Check for possible damage or missing parts immediately upon receipt of unit. Note any damage on receiving papers.

Prepare any claims against carrier if necessary.

NOTE: Damage noticed after receipt must be reported to carrier within 5 days.

Notify NORDOCK of any damage or missing parts.

HANDLING:

WARNING

WARNING! Use caution when lifting or moving the EOD Leveler. DO NOT ATTEMPT to lift without suitable hoisting equipment capable of lifting as much as 1,000 lbs.

Unit is easily handled for installation by hooking a heavy chain to each buttonhead rivet.

INSTALLATION INSTRUCTIONS
INSTALLATION

GENERAL INFORMATION:

WARNING

DO NOT EXCEED DOCK LEVELER CAPACITY. OVER LOADING DOCK LEVELER COULD RESULT IN SERIOUS INJURY OR DEATH.

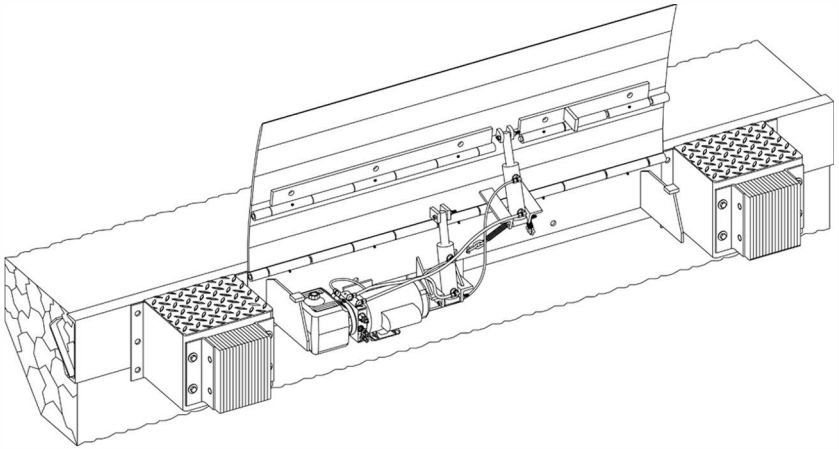
NORDOCK Edge of Dock Levelers are designed to service trailers 5" above to 5" below dock level.

Prior to installation, clean the dock face and dock area.

All prepunched holes are 13/16" diameter. Use 4" to 6" x 3/4" anchor bolts.

WARNING: Before you start to install the leveler, use proper safety signs and barriers to separate the work area from the remainder of the dock.

Illustration: 1



WELD ON—NEW CONSTRUCTION

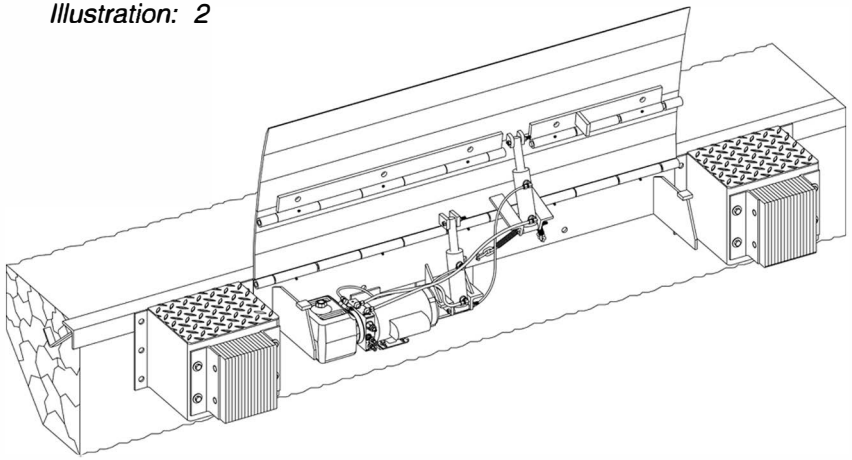
Use when dock edge vertical steel is 8" or wider. At dock edge, mark the center of chosen leveler location. Mark dock edge 33" either side of center (36" for 72" models; 39" for 78" models; 42" for 84" models).

Locate leveler with top of rear hinge flush with top of dock. This will place top of base plate approx. 1/4" below dock surface.

Tack weld ends of base plate to dock face steel, the top edge of base plate being 1/4" below dock. Tack weld both bump blocks at left and right ends of leveler allowing 1/4" space for weld between base plate ends and bump block.

Continuous weld bump blocks and base plate along top and all vertical edges while holding leveler firmly against dock. Spot weld in prepunched holes.

Illustration: 2



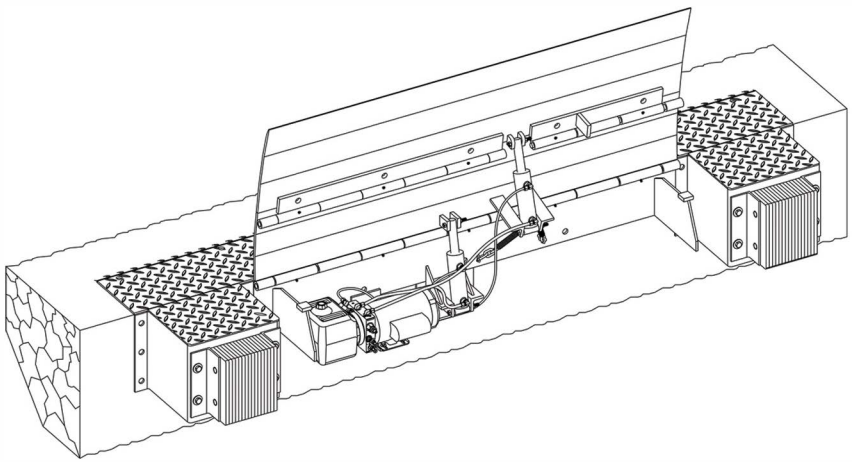
WELD ON/BOLT ON—EXISTING CONSTRUCTION

Use when dock edge steel is securely anchored, but not adequate for weld-on method.

Complete all steps of instruction under "Weld On–New Construction."

Bolt leveler and bump blocks to dock face using all 13/16" pre-punched holes furnished.

Illustration: 3



WARNING

All anchor bolts must be installed in accordance with the manufacturer's instruction. Improper installallation may result in serious personal injury or death.

DO NOT install anchor bolts in cracks of expansion joints in concrete. Installation in cracks or expansion joints may cause the anchors to come loose and pull out. Use of improperly installed anchor bolts may result in serious personal injury and/or death.

BOLT ON + APPROACH PLATE — EXISTING CONSTRUCTION

Use when dock edge has no steel, or steel is poorly anchored, and dock face is adequate for bolting. Mark and drill holes for dock leveler centered 6-1/4" below dock edge; base plate to be raised 1/8" above dock edge for welding to approach plate. Install two (2) anchor bolts in end holes, position leveler on bolts and partially tighten nuts to hold leveler secure.

Place approach plate in position on floor, front edge being 1/8" behind base plate. Mark floor along rear edge of approach plate.

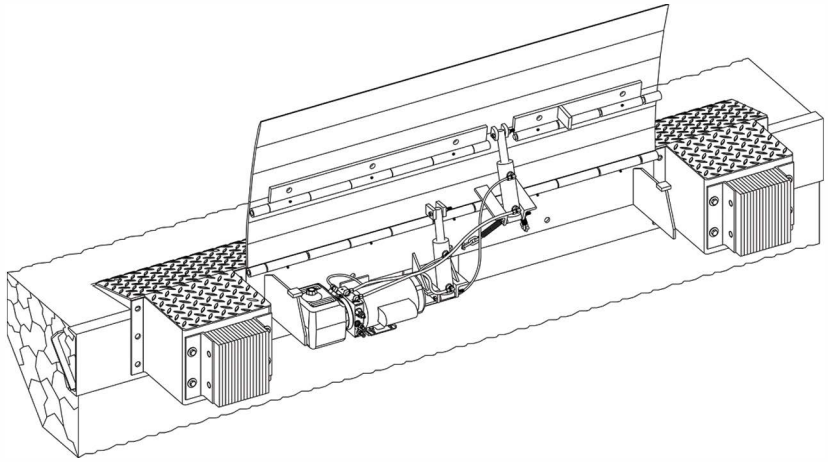
Slide plate forward 2", tack weld to leveler and use as a guide for cutting groove in floor along entire width (long dimension) of approach plate. Groove to be 2" wide, and 1/8" deeper than thickness of approach plate.

Break plate loose from leveler. Position approach plate in groove and tack weld to leveler base plate. Drill holes in floor using plate holes as guide. Install anchor bolts in plate (See General Information page 1-1). Weld and grind bolt heads to approach plate to a smooth dome shape. **Continuous weld** approach plate to top of base plate. Complete bolting phase of unit.

NOTE:

All anchor bolts lengths must suit local codes and conditions. Type and depth of concrete will determine type and length of anchor bolts required.

Illustration: 4



WELD ON AND RAISED APPROACH PLATE

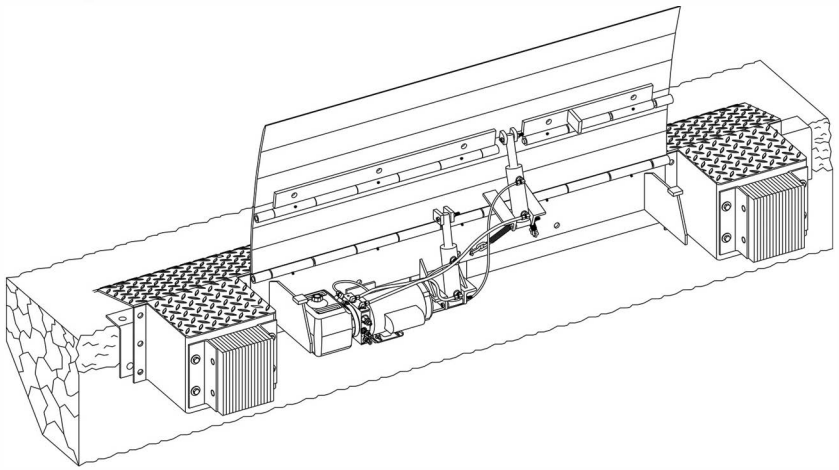
Use when dock edge is sound but height is less than adequate (bolting may also be required). At dock edge, mark the center of chosen leveler location. Mark dock edge 33'' either side of center (36'' for 72'' models; 39'' for 78'' models; 42'' for 84'' models).

Raise leveler and bump blocks to desired height (3'' max.), and weld back of base plate to dock edge steel. Tack weld both bump blocks at left and right ends of leveler allowing 1/4'' space for weld between base plate ends and bump block.

Cut groove in floor, position approach plate at top edge of base plate and tack weld to unit and bump blocks. *(See Illustration 3 for details.)*

Complete bolting phase of installation, then **continuous weld** all points of contact between leveler, dock steel and approach plate.

Illustration: 5



FORMED ANGLE-WELD ON—RAISED APPROACH PLATE

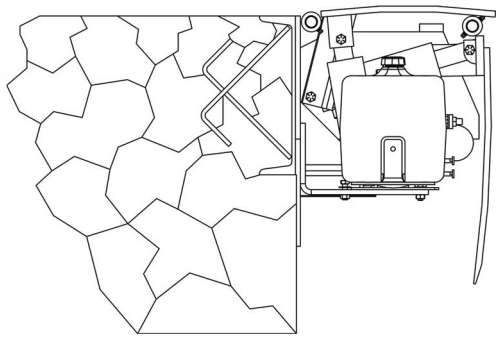
Use when dock edge is badly crumbled and dock edge is slightly low.

Unit must be raised approximately 2'' in this application!

Position formed angle at desired location, mark holes, remove angle, drill holes and install angle. Install unit and approach plate according to methods described for "Existing Construction" *(See Illustrations 3 & 4).*

Bumper must be at 48" height min. to top of bumper.
Both Applications.

Illustration: 6



Side View – EFH Series

Units are shipped filled with aircraft hydraulic fluid. Check fluid level upon installation.

IMPORTANT! Replace plug cap with breather cap provided. DAMAGE COULD OCCUR!

Standard Applications:

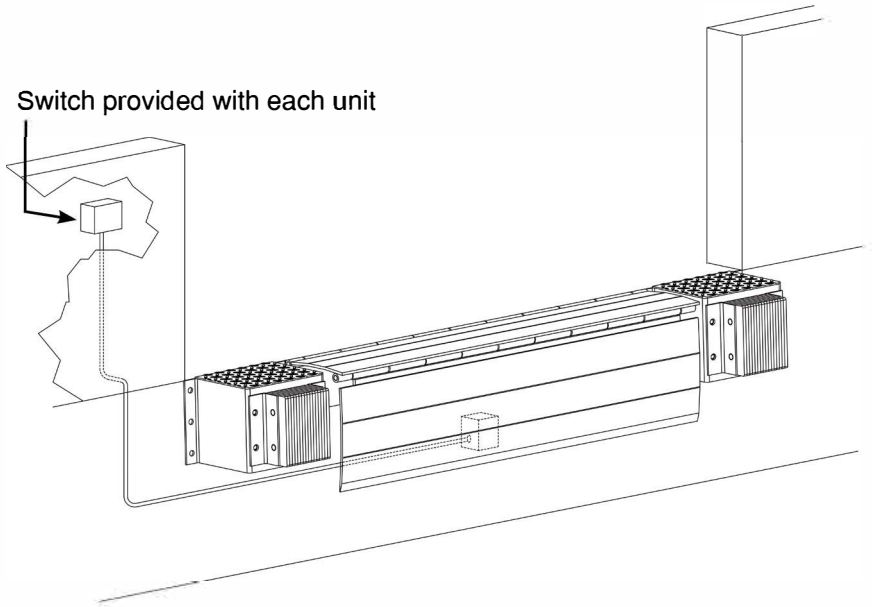
1. Install the control panel on a wall adjacent to the overhead door at approximately 48 in. - 50 in. (1219 mm - 1270 mm) above the floor level. Make sure to mount where control panel is clear of obstructions.

2. Drill a hole for the power supply conduit (supplied by others) in the bottom of the control panel. All holes drilled through the control panel must be through the bottom of the enclosure.

3. Fused disconnect must be installed per latest edition of UL508A and NEC requirement, located within a 50' radius and be visible from the control panel location.

SECTION 1

INSTALLATION INSTRUCTIONS
ELECTRIC



Motor may be wired for 120V/1 phase, 240V, 1 phase or 208/240/460V 3 phase. (Please specify when ordering.)

N.E.M.A. approved switch shipped with each unit.

Install conduit and wiring as per electrical schematic instructions.

Conduit may be run externally for existing construction installation.

SECTION 1

TEST OPERATION

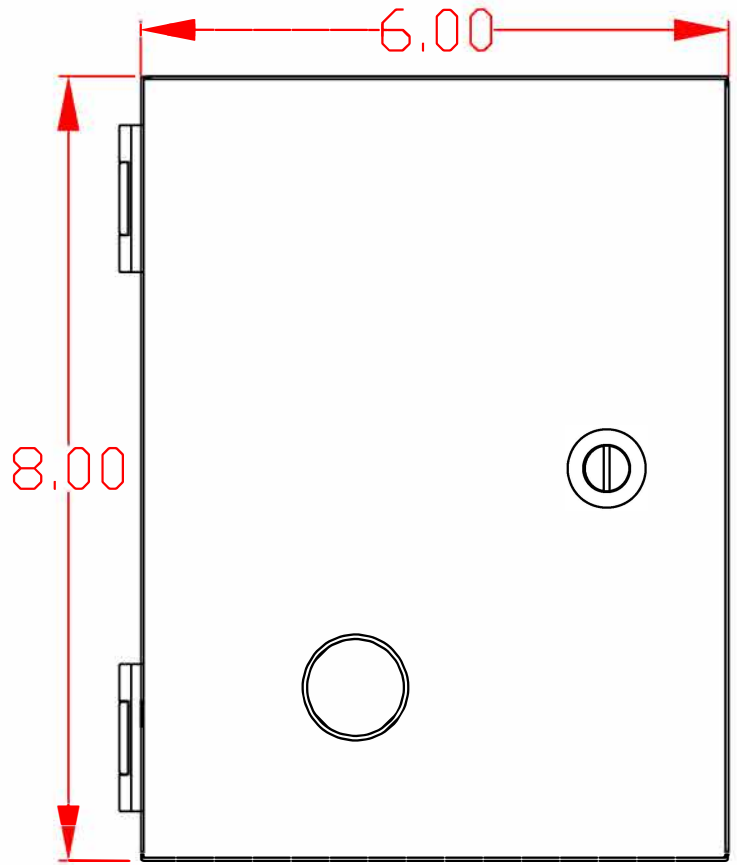
Test operate unit:

Insure breather cap is in place of plug in reservoir.

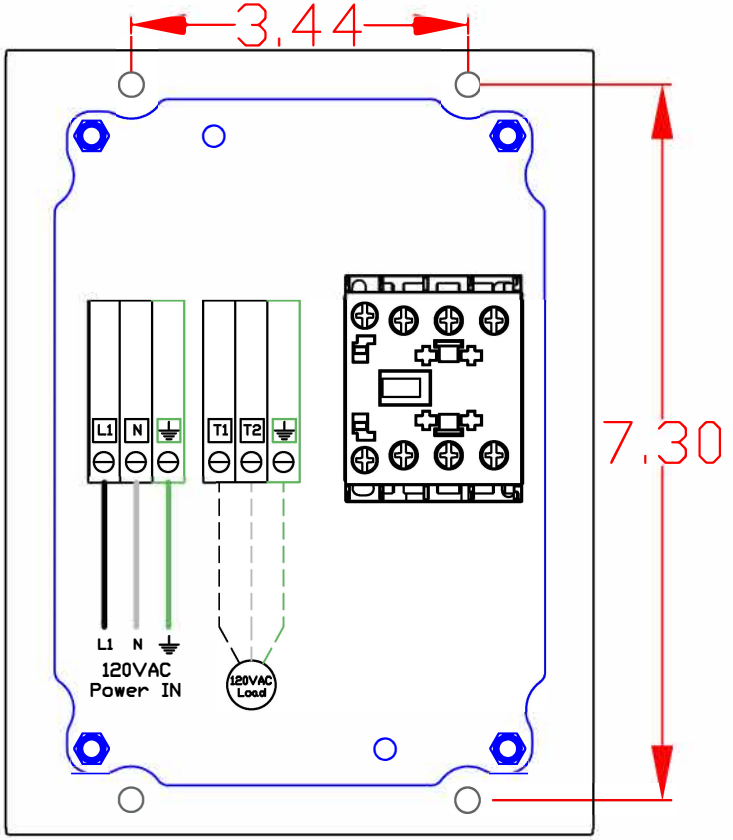
Depress button (or turn switch) to raise unit. As unit raises, lip will extend. When lip extends, release button (switch). Unit will lower to truck bed.

ENSURE UNIT RESTS ON SUPPORT GUSSETS IN STORED POSITION. NO WEIGHT SHOULD BE RESTING ON HYDRAULIC CYLINDER SHAFT.

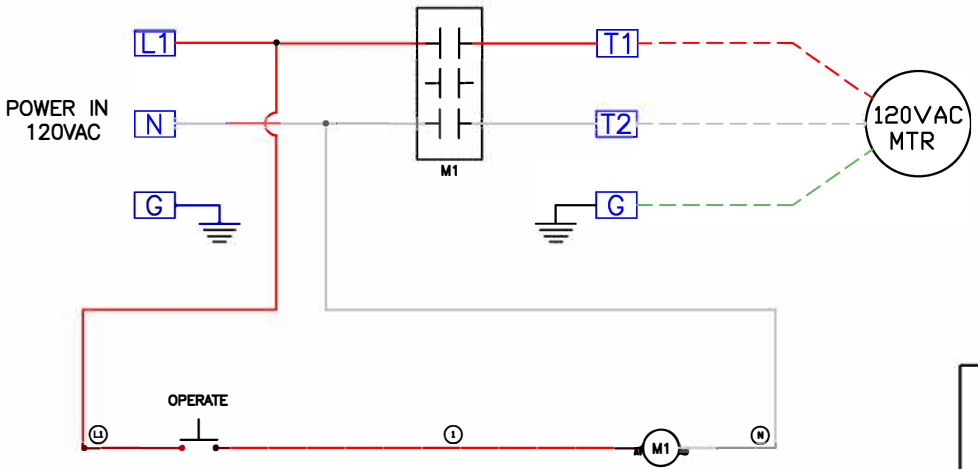
WEEKLY MAINTENANCE **CAUTION:** **ALWAYS BRACE LEVELER SECURELY AND SAFELY WHEN MAINTENANCE IS REQUIRED.**	Check unit for leaks. Check unit for physical damage. -Cracks in tubes and welds Check installation
MONTHLY MAINTENANCE	Check fluid levels
YEARLY MAINTENANCE	Lubricate hinges and all other moving parts. Check rubber bumpers.
5 YEAR MAINTENANCE	Replace hydraulic fluid. **HYDRAULIC FLUID:** Use aircraft fluid or Dextron III for normal operation. For extremely cold regions fluid can be replaced by an arctic grade (or aircraft) hydraulic fluid. Check local distributors for availability.
WARNING **WARNING! DO NOT allow lip and ramp to fall free. Allowing dock leveler to fall free could result in dock leveler coming free from dock or damaging components resulting in property damage, serious, injury and/or death.**	



FRONT VIEW



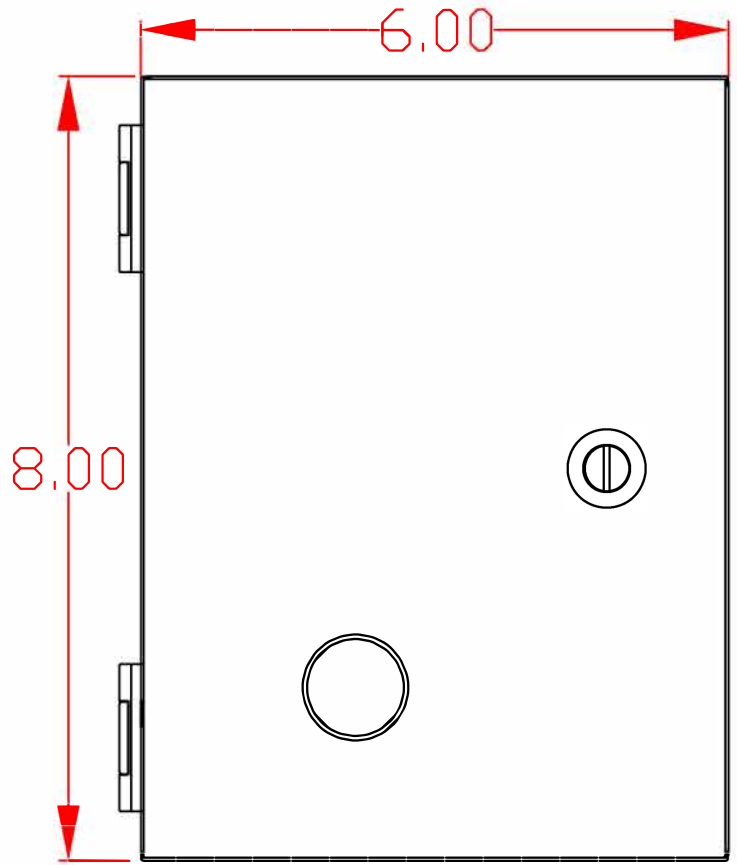
INTERNAL FRONT VIEW



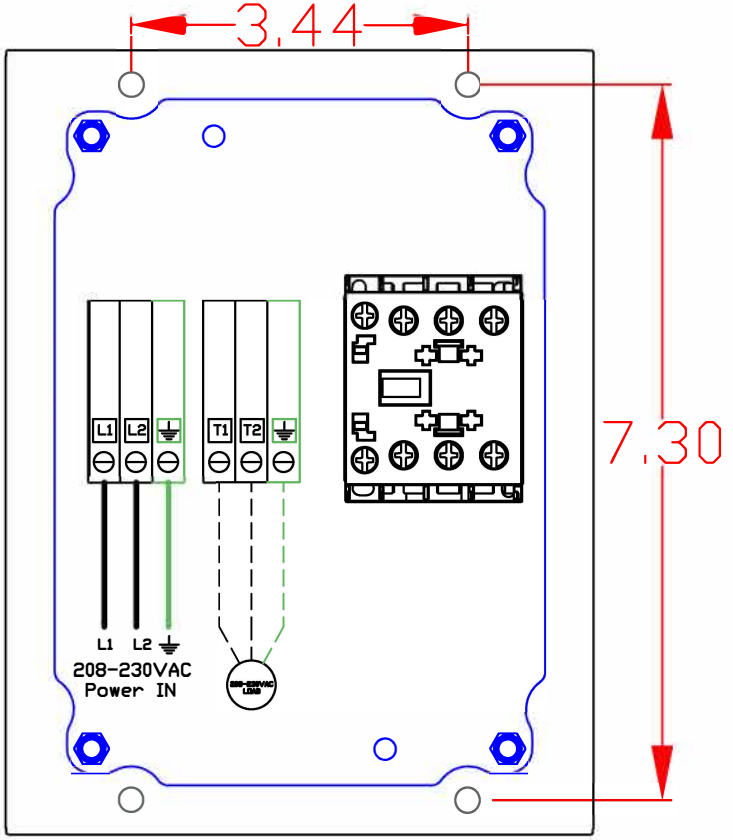
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120VAC SINGLE PHASE

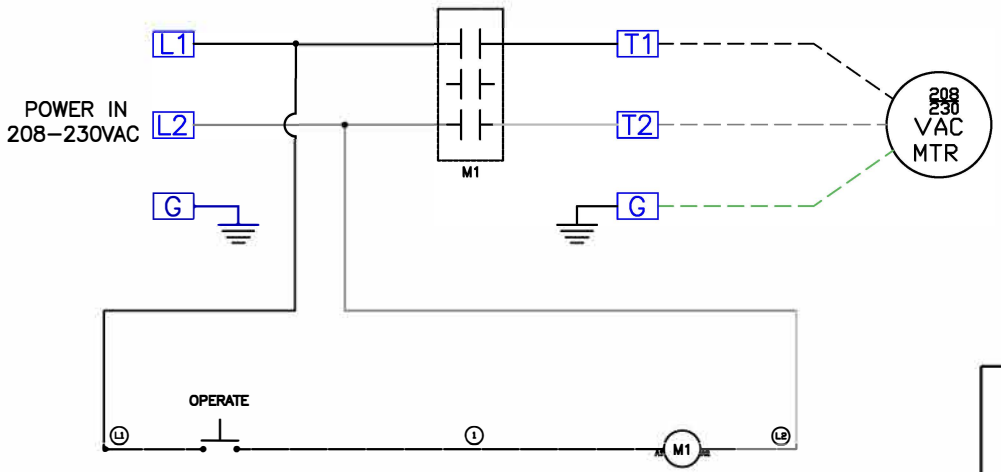
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FRONT VIEW



INTERNAL FRONT VIEW

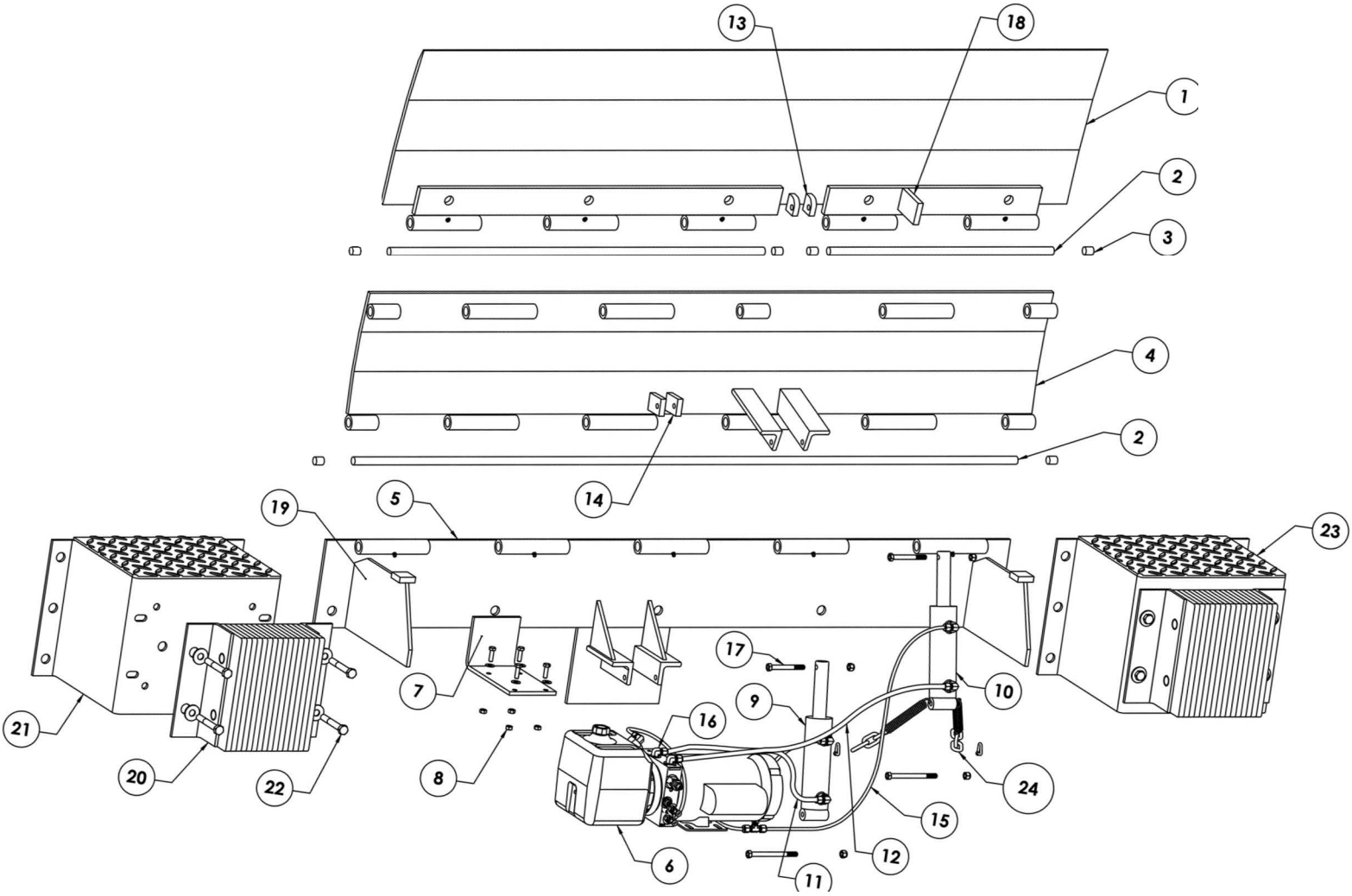


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208-230VAC SINGLE PHASE

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R. Arlks	1

EFH - Exploded View



Hydraulic Edge-of Dock Models Parts List

MODEL EFH

Illus#	Part#	Part Description
1	****	Lip Plate Assembly
2	0115	Hinge Pin - 66" Units (3 required)
2	0819	Hinge Pin - 66" - 30,000 lb. (3 required)
2	0423	Hinge Pin - 72" - 30,000 lb. (3 required)
3	1751	End Tube Plug (2 for each hinge pin)
4	****	Center Plate Assembly
5	****	Base Plate Assembly
6	9915	Hydraulic Motor & Pump Single Phase
6	9916	Hydraulic Motor & Pump Three Phase
7	0243	Motor Mounting Plate
8	0256	Motor Mounting Plate Bolt Kit (4 each)
9	9231	Hydraulic Cylinder C1 (lower cylinder)
10	9231	Hydraulic Cylinder C2 (upper cylinder)
11	9547	Hydraulic Hose C1 - 24.5"
12	9497	Hydraulic Hose C2 - 31.5"
13	0559	Upper Cylinder Mounting Tabs (lip)
14	1970	Lower Cyl. Mounting Tabs (Center Plate)
15	3525	Clear 1/4" return line (10' kit)

Illus#	Part#	Part Description
16	3524	Hydraulic Fitting Kit (9 fittings)
17	3527-HED	Cylinder Upper & Lower Mounting Bolt Kit
18	1011	Lip Stop Tab
19	0107	Gussets (2 each required)
20	P4H1012	Laminated Bumper
(20) Opt.	0137	Molded Cord Rubber (4 hole) (4" x 12" x 13")
(20) Opt.	0500	Molded Cord Rubber (18" tall) (4" x 10" x 18")
21	0138	Bump Block Steel w/Cover (4 hole)
(21) Opt.	9270	Bump Block Steel w/Cover (2 hole)
(21) Opt.	0898	18" Bump Block Steel w/Cover (4 hole)
22	3581	Laminated Bumper Hardware
(22) Opt.	0276	4 Hole Bumper Hardware
(22) Opt.	1787	2 Hole Bumper Hardware
23	3786	Bump Block Assy. 4 Hole
(23) Opt.	1771	Bump Block Assy. (2 Hole - Optional)
(23) Opt.	0208	18" Bump Block Assy. 4 Hole - Optional)
24	3526	Cylinder Spring / Chain Kit
25	****	Control Panel (Voltage & Phase?)

Step 1	With leveler in stored position, back truck into position against the bumpers.  CAUTION: ALWAYS CHOCK TRUCK WHEELS AND ENGAGE TRAILER RESTRAINT BEFORE LOADING AND UNLOADING.
Step 2	Remove end load, if any, from truck with leveler in stored position.
Step 3	Raise leveler by applying pressure to (turning) the wall mounted switch. Release button (switch) when both sections of leveler are fully raised. Unit will automatically lower to truck floor. When truck departs, unit will return to stored position.
Step 4	Unit may be recycled with truck in position against the bumpers. 1. Apply pressure to (turn) the wall switch. Center plate section of unit will raise off the truck floor. 2. Release the button (switch) as soon as the leading edge of the lip plate section clears the rear edge of the truck. The unit will tuck itself and return to the stored position.

Lip not returning to stored position.	1. Visually check lip cylinder for damage. 2. Valve needs adjustment. **Call Factory for Adjustment Instructions**
Unit not descending.	1. Check pullover chain/spring to ensure they are connected. 2. NV1 not properly adjusted.
Unit descending too slowly or quickly.	1. Adjust descend valve • clockwise slows descend • counter clockwise accelerates descend
Unit not raising (motor running)	1. Visual check of hydraulic fluid tank. Should be 1/2 to 3/4 full. 2. Viscosity of fluid has failed. • Change to an arctic temperature type to prevent motor/ pump burnout. 3. Consult factory.
Unit not raising (motor not running)	1. Check electrical hook up - voltage, phase, and wiring. 2. Motor/pump damaged - requires replacement.

***Hydraulic valve adjustments are normal maintenance and are not covered under warranty.**

NOTES

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Warranty Procedure

The information on the Warranty Claim Request Form must be provided with all warranty claims.

When a call is received with a warranty problem a Customer Service number (CSF ####) will be issued for that problem only and cannot be used again without prior approval. This number must be on all invoices submitted for payment and on all correspondence.

Before and after pictures of all the work performed must be supplied with each claim. If you take digital pictures, e-mail them to techservice-nordock@4frontes.com.
If you use a film camera forward the film to techservice-nordock@4frontes.com.

PO Box 338 Spring Hill Tn 37174,
Attn: Warranty Dept.

No claim will be considered for processing without the required information.

Nordock's warranty policy for labor (once approved) requires a formal invoice from the customer performing the warranty. Nordock must receive labor invoice within 30 days of warranty authorization. Upon receipt of labor invoice, a check will be processed.

Replacement Part under Warranty

Any replacement parts will be invoiced and a credit will be given when the damaged parts are returned to Nordock. Nordock will determine the only exception, if the parts are not to be returned. A copy of the credit memo will be sent to your billing address. If a check payment is required, the request must be in writing. The request then has to be approved by Nordock's accounts payable department.

Replacement parts will be sent at Nordock's discretion either UPS ground or OTR truck. Any other request for shipments will be charged to the dealer. I.e. UPS next day-FedEX etc.

All returned parts will be issued a Return Goods Authorization Number (RGA ####). A form will be faxed to you with this number, the signed copy is to be faxed to 1-931-486-0316 or returned with the parts. The Return Authorization is only good for 30 days. **The RGA # must be listed on all returns, using the RGA form as a packing list.**

No credits will be issued without proper authorization. **No Credit will be given on non-Nordock parts.**

A copy of the credit memo will be sent to your billing address. The credit will be given against the invoice issued for the replacement parts.

Any questions regarding Warranty or Return Authorization should be directed to Customer Service at techservice-nordock@4frontes.com or 1-866-885-4276.

EDGE OF DOCK WARRANTY

All NORDOCK DOCK LEVELERS carry a comprehensive structural warranty. NORDOCK guarantees its EDGE OF DOCK LEVELERS against defects in material and workmanship for a period of TWO (2) years, beginning at Date of Shipment.

NORDOCK accepts full responsibility for the cost of materials, labor and freight for any warranty claim and reserves the right to either repair or replace any defective parts. NORDOCK'S STANDARD WARRANTY PROCEDURES MUST BE FOLLOWED.

A claim for breach of warranty will be honored if the product has been properly installed, maintained and operated within its capacity, and not damaged by abuse.

NORDOCK SHALL NOT BE LIABLE FOR LOSS OF USE OF ANY EQUIPMENT OR INCIDENTAL DAMAGES. NORDOCK EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES.

All NORDOCK products meet or exceed Federal Occupational Safety and Health Act Standards, Commercial Standards 202-56, and American Society of Mechanical Engineers Specifications ANSI MH14.1-84.

Nordock reserves the right to make product improvement at any time without prior notice.

Warranty Phone # 1-866-885-4276