

INTENDED FOR USE BY PROFESSIONAL EQUIPMENT OPERATORS

# INSTRUCTIONS

# MANUAL



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 **READ AND UNDERSTAND BEFORE PERFORMING CONVERSION**



## CONVERSION BETWEEN SINGLE-CHANNEL AND DOUBLE-CHANNEL VACUUM LIFTERS

For use with P1-04DC(3) and P2-0435/45/7DC(3) models



# TABLE OF CONTENTS

<b>SPECIFICATIONS .....</b>	<b>2</b>
<b>OVERVIEW .....</b>	<b>3</b>
<b>FEATURES.....</b>	<b>4</b>
<b>ASSEMBLY .....</b>	<b>6</b>
TO ASSEMBLE OR DISASSEMBLE P1-04DC(3) LIFTER .....	6
TO ASSEMBLE OR DISASSEMBLE P2-0435/45/7DC(3) LIFTER.....	10
About P2 Lift Frame Support Arms .....	13
TO COMPLETE LIFTER ASSEMBLY .....	14
<b>OPERATION.....</b>	<b>15</b>
TO ROTATE THE LOAD USING A P1 LIFTER.....	15
TO TILT THE LOAD USING A P1 LIFTER.....	16
TO ROTATE THE LOAD USING A P2 LIFTER.....	17
TO TILT THE LOAD USING A P2 LIFTER.....	18

# SPECIFICATIONS

*Note: Primarily, these are instructions for assembly. They are not intended to address vacuum lifter safety, maintenance or power system operation. Only operational information about the lift bar assembly and lift frame is included in this INSTRUCTIONS MANUAL.*

**Refer to separate OPERATING INSTRUCTIONS for more information.**

*If you do not already have OPERATING INSTRUCTIONS for the model of lifter you are assembling, be sure to obtain the correct OPERATING INSTRUCTIONS from [wpg.com](http://wpg.com), your dealer or Powr-Grip Technical Service.*

<b>P1 Model Numbers</b>	P11104DC(3) = PCFT1A1 + PC1104DC(3)	P110T04DC3 = PCFT1A1 + PC10T04DC3	P110(C)04DC(3) = PCFT1A1 + PC10(C)04DC(3)
<b>Components:</b>			
<b>Vacuum Pads<sup>1</sup></b> (4 each, standard rubber)	11" [28 cm] nominal diameter, lipped (Model G3370)	10" [25 cm] nom. diameter, w/ring (Model VPFS10T <sup>2</sup> )	10" [25 cm] nom. diameter, concave (Model G0750)
<b>Pad Spread</b> (to outer edges)	51" x 12" [130 cm x 30 cm]	50¾" x 11¾" [129 cm x 30 cm]	49" x 10" [125 cm x 25 cm]
<b>Maximum Load Capacity</b>	Per Pad: 175 lbs [80 kg] Total: 700 lbs [320 kg]	Per Pad: 150 lbs [68 kg] Total: 600 lbs [270 kg]	Per Pad: 150 lbs [68 kg] Total: 600 lbs [270 kg]
<b>Lifter Weight</b>	90 lbs [41 kg]		

<b>P2 Model Numbers</b>	P2110435DC(3)	P2110445DC(3)	P211047DC(3)	P210T0435DC3	P210T0445DC3	P210T047DC3
<b>Components:</b>	= PCFT2SA45 + 2x PC1104DC(3)	= PCFT2SA45 + 2x PC1104DC(3)	= PCFT2SA7 + 2x PC1104DC(3)	= PCFT2SA35 + 2x PC10T04DC3	= PCFT2SA45 + 2x PC10T04DC3	= PCFT2SA7 + 2x PC10T04DC3
<b>Vacuum Pads<sup>1</sup></b> (8 each, standard rubber)	11" [28 cm] nominal diameter, lipped (Model G3370)			10" [25 cm] nominal diameter, w/ring (Model VPFS10T)		
<b>Pad Spread</b> (to outer edges)	51" x 40½" [130 x 103 cm]	51" x 54¼" [130 x 138 cm]	51" x 84¼" [130 x 214 cm]	50¾" x 40¼" [129 x 102 cm]	50¾" x 54" [129 x 137 cm]	50¾" x 84" [129 x 213 cm]
<b>Maximum Load Capacity</b>	Per Pad: 175 lbs [79.5 kg] Total: 1400 lbs [635 kg]			Per Pad: 150 lbs [68 kg] Total: 1200 lbs [545 kg]		
<b>Lifter Weight</b>	180 lbs [82 kg]	200 lbs [91 kg] <sup>3</sup>	205 lbs [93 kg] <sup>4</sup>	170 lbs [77 kg]	210 lbs [95 kg]	215 lbs [98 kg]

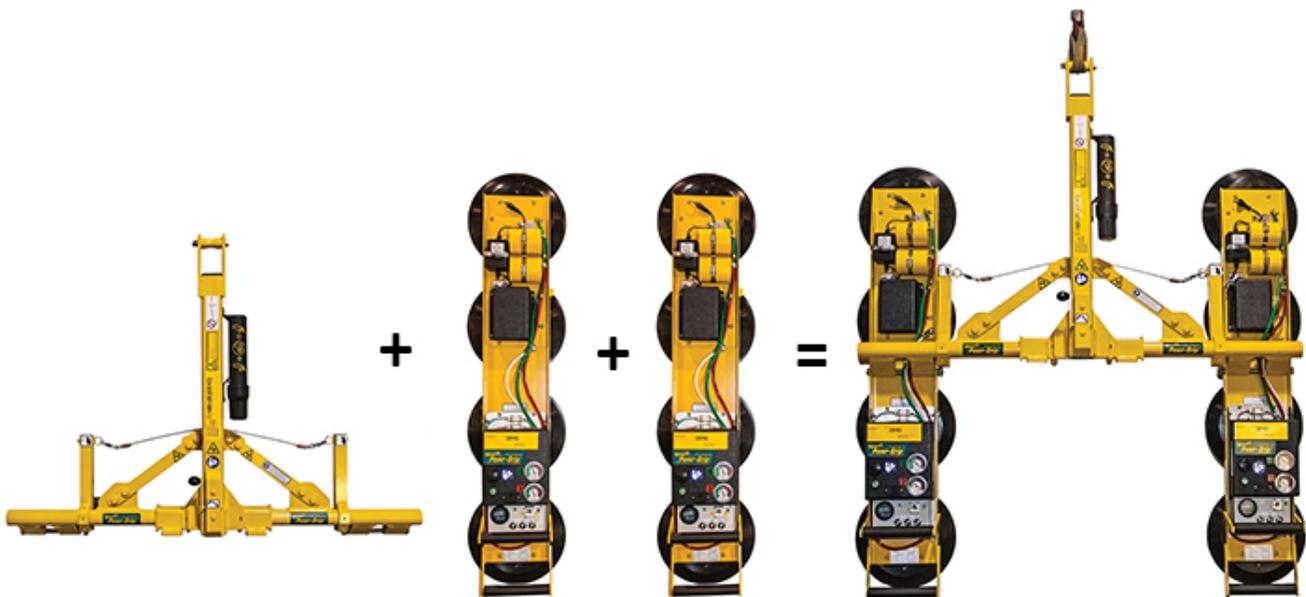
- 1..... Available with other rubber compounds for special purposes; contact WPG for more information.
- 2..... Standard with replaceable sealing ring for rough or textured surfaces (see "REPLACEMENT PARTS" in the lifter's OPERATING INSTRUCTIONS).
- 3..... Asian Model P2110445DC(3) Lifter Weight: 215 lbs [98 kg]
- 4..... Asian Model P211047DC(3) Lifter Weight: 225 lbs [102 kg]

# OVERVIEW

Channel lifters can be assembled from interchangeable components, as shown. To convert from model P1-04DC(3) to model P2-0435/45/7DC(3), or vice versa, disassemble one lifter and assemble the other, as directed in [“ASSEMBLY”](#).



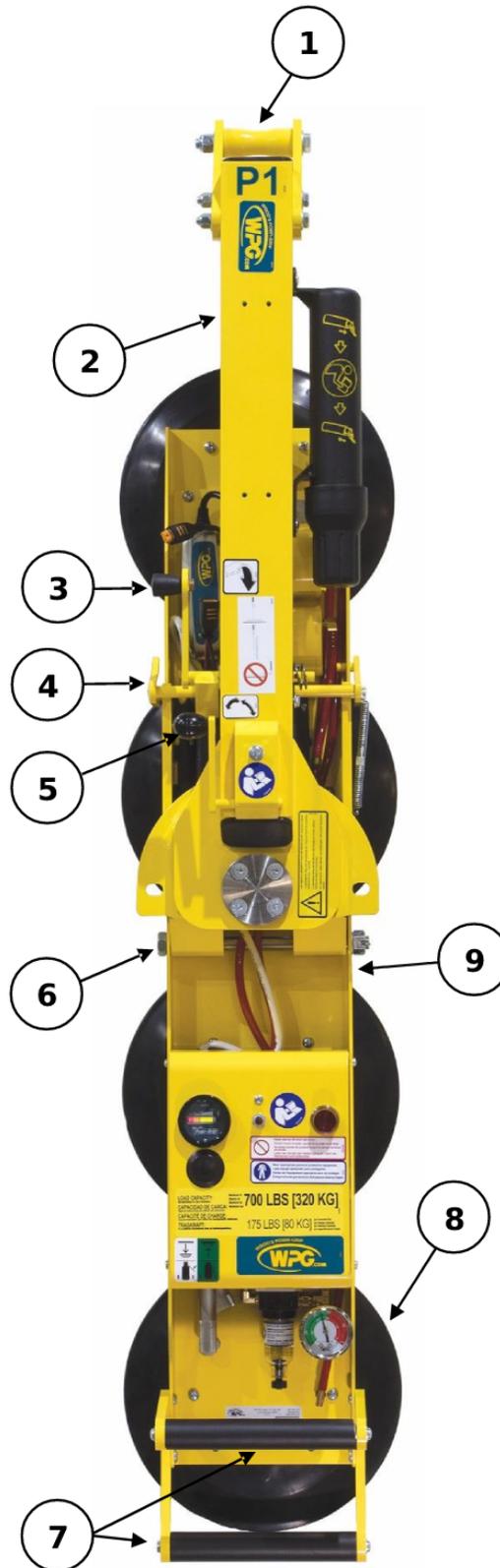
P1 LIFT BAR ASSEMBLY + CHANNEL = P1 CHANNEL LIFTER



P2 LIFT FRAME + CHANNEL + CHANNEL = P2 CHANNEL LIFTER

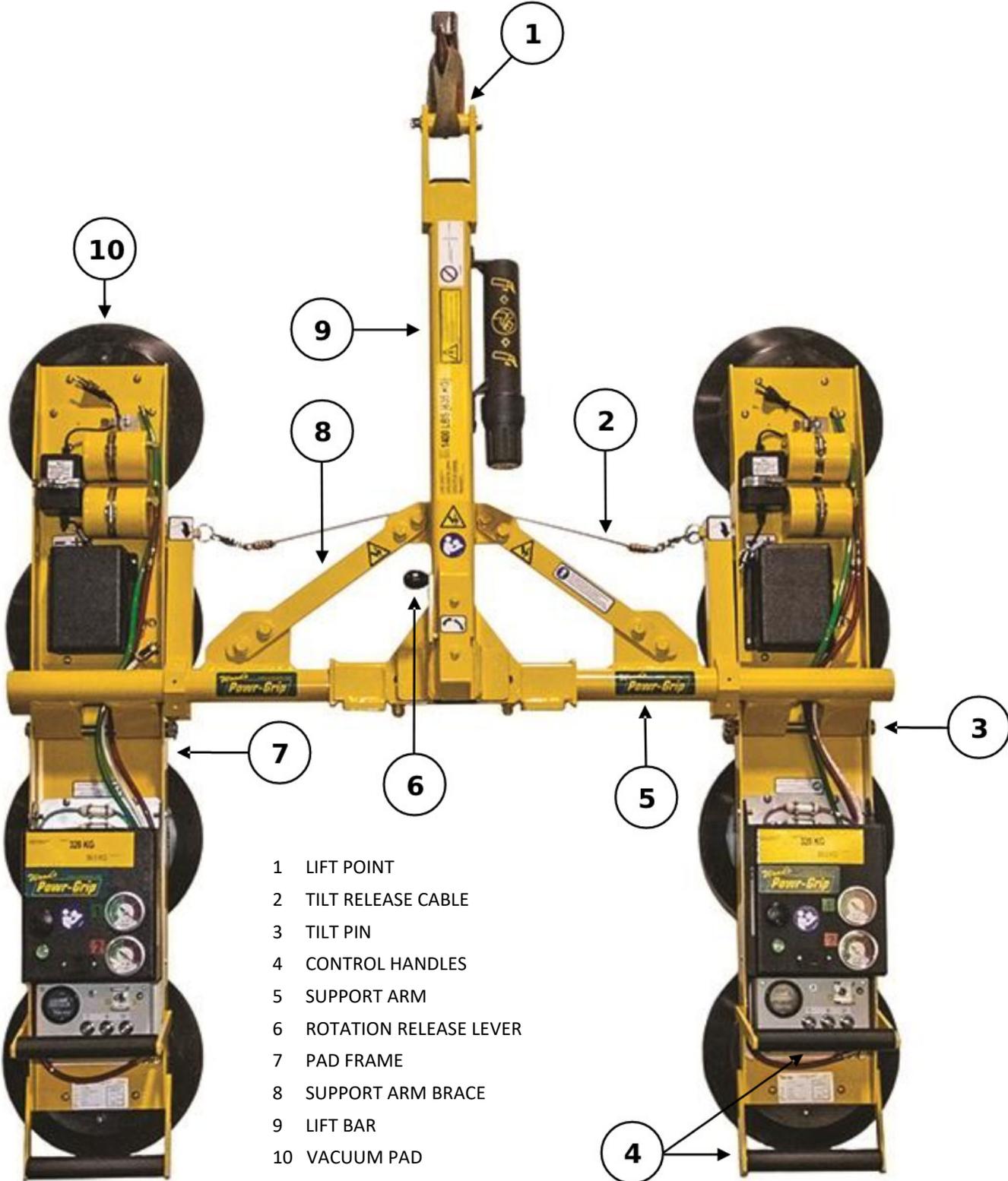
# FEATURES

Features shown here are underlined> on their first appearance in each section following.



- 1 LIFT POINT
- 2 LIFT BAR ASSEMBLY
- 3 TILT RELEASE LEVER
- 4 TILT LATCH BAR
- 5 ROTATION RELEASE LEVER
- 6 TILT PIN
- 7 CONTROL HANDLES
- 8 VACUUM PAD
- 9 PAD FRAME

# FEATURES



- 1 LIFT POINT
- 2 TILT RELEASE CABLE
- 3 TILT PIN
- 4 CONTROL HANDLES
- 5 SUPPORT ARM
- 6 ROTATION RELEASE LEVER
- 7 PAD FRAME
- 8 SUPPORT ARM BRACE
- 9 LIFT BAR
- 10 VACUUM PAD

# ASSEMBLY

- 1) Remove all shipping materials and save them with the shipping container(s) for future use.
- 2) Select hoisting equipment (crane and hoist, when applicable) rated to carry the Maximum Load Capacity plus the Lifter Weight of the desired model (see "SPECIFICATIONS").

*Note: Any application of the lifter must conform to all statutory or regulatory standards that relate to the hoisting equipment when used in its geographical location.*

## TO ASSEMBLE OR DISASSEMBLE P1-04DC(3) LIFTER

- 1) Suspend the lift bar assembly from appropriate hoisting equipment:

- 1.1) Attach the hoisting hook to the lift point (fig. 1A).

 **Make sure hook has restraining latch (see arrow in fig. 1B).**



- 1.2) Use rigging (fig. 1C) as needed to make sure the hook does not interfere with the load.

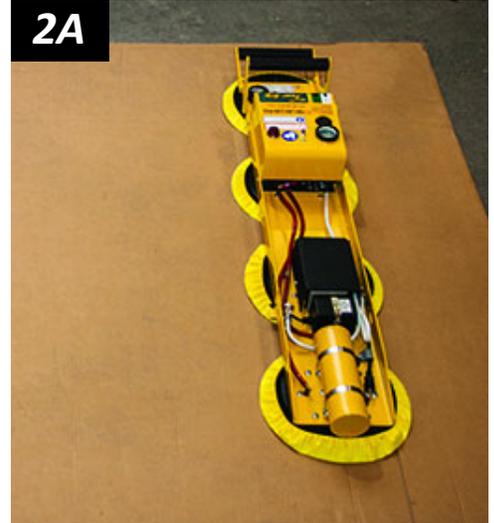
 **Only use rigging rated for Maximum Load Capacity plus Lifter Weight.**



# ASSEMBLY

- 2) Remove the channel from the shipping container, being careful to avoid damage to any vacuum pads.

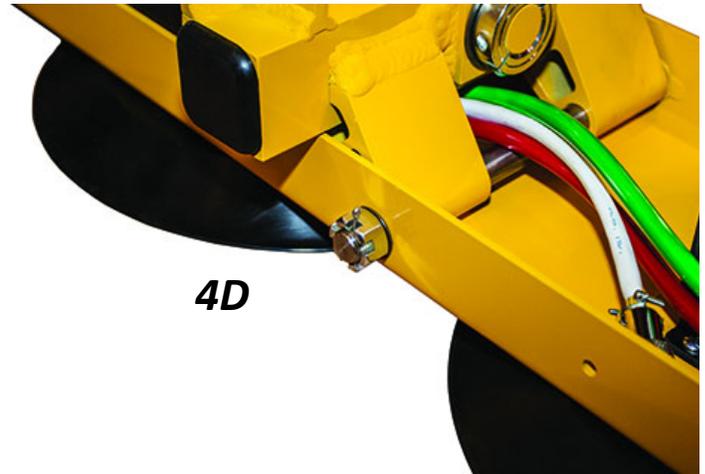
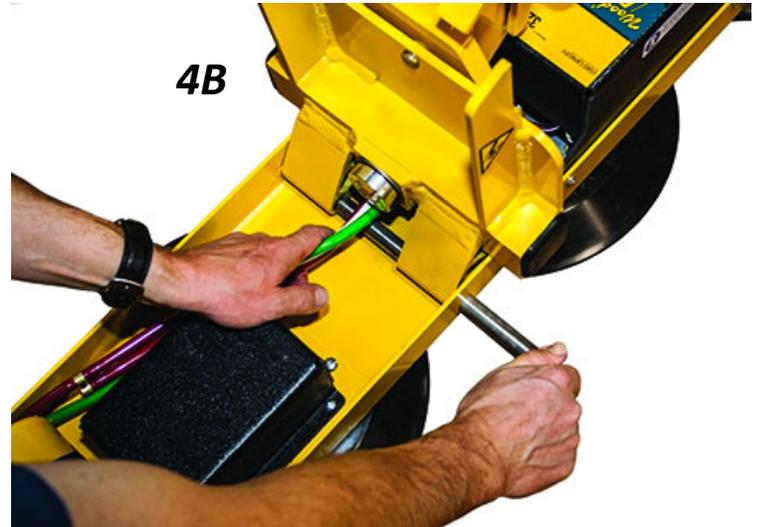
Position the channel on a clean, flat surface (fig. 2A).



- 3) Use the hoisting equipment to position the lift bar assembly between the rails of the channel's pad frame, making sure the bar is oriented correctly (fig. 3A).



# ASSEMBLY



## 4) Attach the lift bar assembly to the channel:

4.1) Align the mounting holes on the lift bar assembly with those in the pad frame (fig. 4A).

4.2) Insert the tilt pin through the mounting holes, underneath the vacuum hoses and wiring (fig. 4B).

**Caution:** To avoid damage, do not place tilt pin on top of vacuum hoses or wiring.

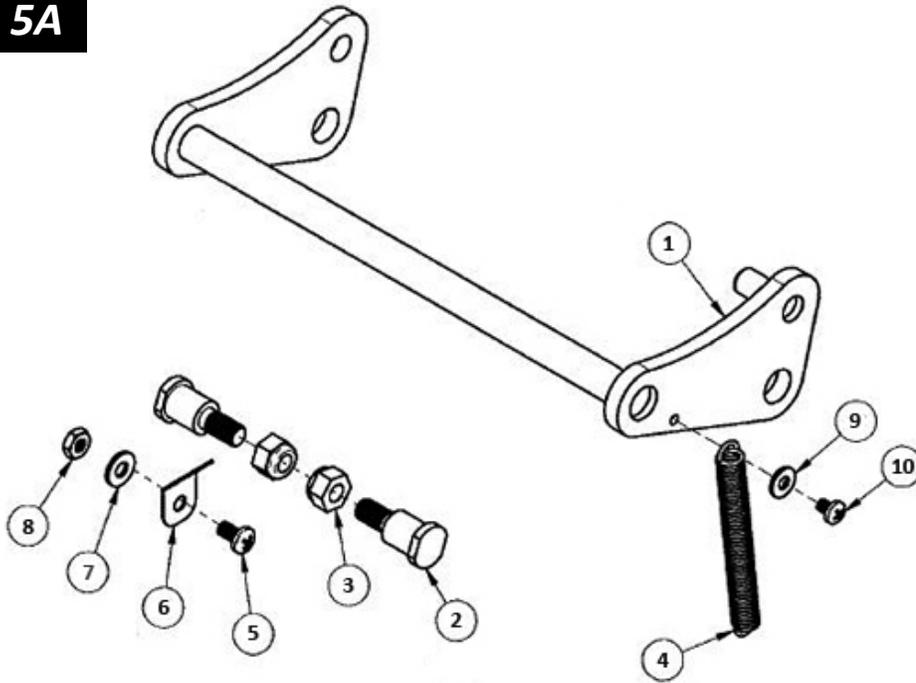
4.3) Secure the tilt pin using the hardware supplied (figs. 4C-D).

*Note:* Flat washers should be installed outside of the pad frame.

**Caution:** Replace cotter pin each time it is used.

# ASSEMBLY

**5A**



- 1 TILT LATCH WELDMENT
- 2 TILT LATCH SHOULDER BOLT
- 3 5/16-18 NYLON LOCK HEX NUT
- 4 TILT LATCH BAR SPRING
- 5 10-32 X 3/8" MACHINE SCREW
- 6 SPRING CLIP
- 7 #10 SAE FLAT WASHER
- 8 10-32 HEX NUT
- 9 #8 SAE FLAT WASHER
- 10 8-32 x 1/4" PAN HEAD SCREW

5) Install the tilt latch bar on the pad frame using the hardware supplied (fig. 5A).

Lower the lift bar, to make sure the tilt latch engages correctly (circled in fig. 5B).



**5B**



**6A**



**6B**



**6C**

6) Disengage the tilt latch and raise the lift bar (fig. 6A-C).

*Note: Reverse steps 1–6 to disassemble a P1-04DC(3) lifter.*

# ASSEMBLY

## TO ASSEMBLE OR DISASSEMBLE P2-0435/45/7DC(3) LIFTER

1) Suspend the lift frame from appropriate hoisting equipment:

1.1) Disengage the rotation latch and raise the lift bar (figs. 1A-B).

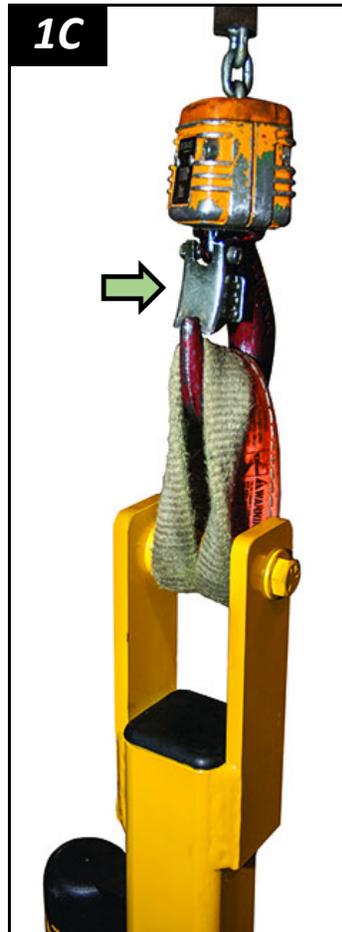


1.2) Attach the hoisting hook to the lift point (fig. 1C).

**!** Make sure hook has restraining latch (see arrow in fig. 1C).

*Note: Use rigging (fig. 1D) as needed to make sure the hook does not interfere with the load.*

**!** Only use rigging rated for Maximum Load Capacity plus Lifter Weight.

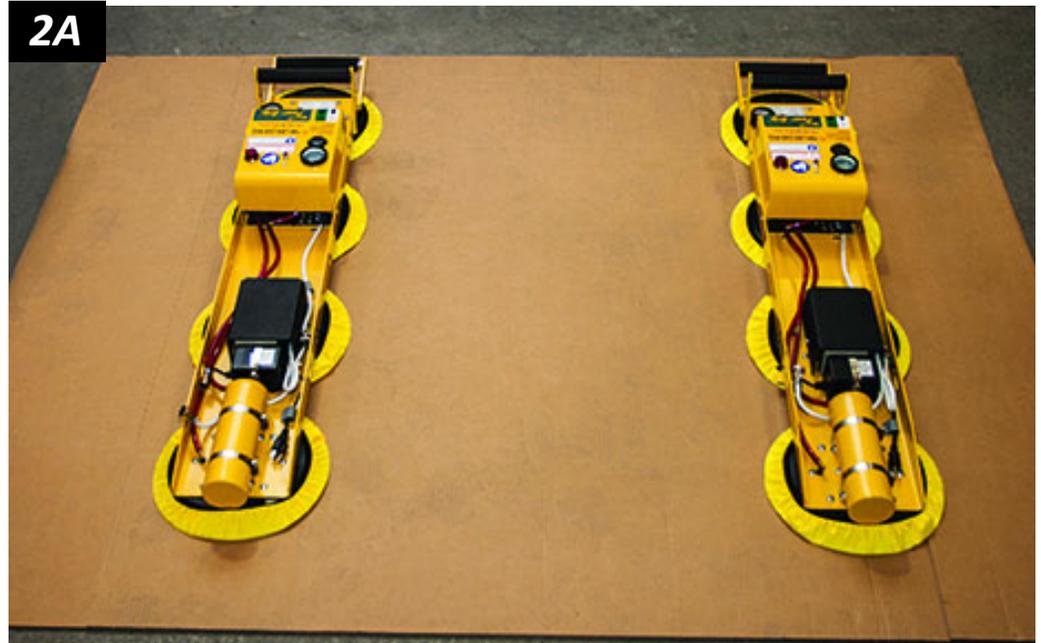


# ASSEMBLY

- 2) Remove the channels from the shipping containers, being careful to avoid damage to any vacuum pads.

*Note: Both channels must have identical Model Numbers. If not, they are not compatible for use on the same lifter.*

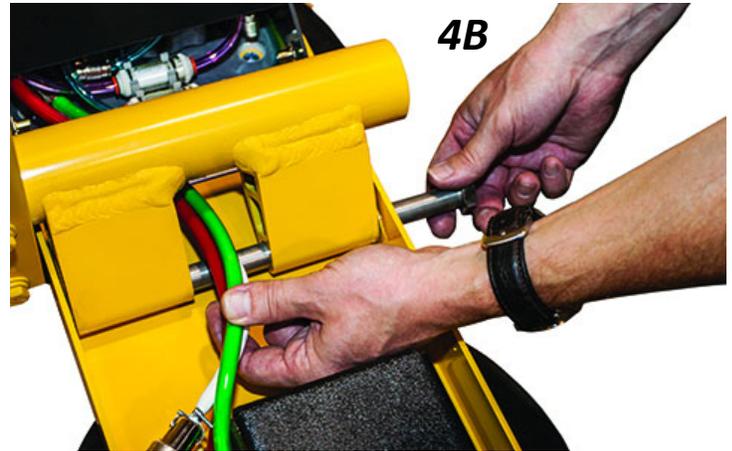
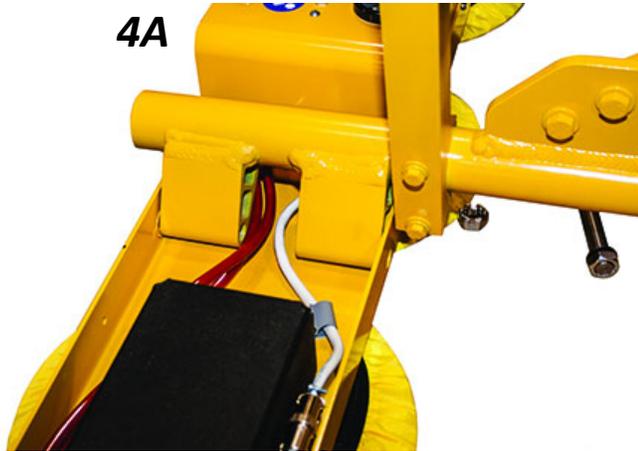
Position the channels on a clean, flat surface (fig. 2A).



- 3) Use the hoisting equipment to position the lift frame between the rails of each channel's pad frame (fig. 3A).



# ASSEMBLY



## 4) Attach the lift frame to the two channels:

4.1) Align the mounting holes on the lift frame with those in one pad frame (fig. 4A).

4.2) Insert a tilt pin through the holes in one pad frame, underneath the vacuum hoses and wiring (fig. 4B).

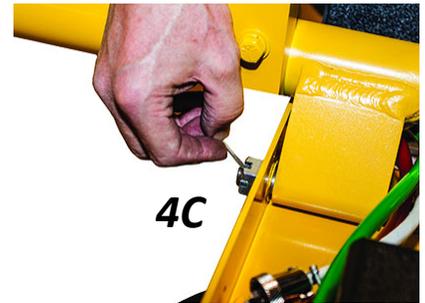
**Caution:** To avoid damage, do not place tilt pin on top of vacuum hoses or wiring.

4.3) Secure the tilt pin using the hardware supplied (fig. 4C).

**Note:** Flat washers should be installed on the outside of each channel's pad frame.

**Caution:** Replace cotter pins each time they are used.

4.4) Repeat steps 4.1–4.3 to attach the second pad frame securely to the lift frame.



**Note:** Reverse steps 1–4 to disassemble a P2-0435/45/7DC(3) lifter.

# ASSEMBLY

## About P2 Lift Frame Support Arms

Optional conversions kits allow you to change the width of the lift frame's support arms, to match your typical load requirements. The three options include:

- Model FA27 Lift Frame Adapter (**#57223AM**):  
When installed, this option extends the lift frame to approximately 7' [2.14 m] wide.



- Model FA245 Lift Frame Adapter (**#57222AM**):  
When installed, this option extends or shortens the lift frame to approximately 4.5' [1.38 m] wide.



- Model FA235 Lift Frame Adapter (**#57221AM**):  
When installed, this option shortens the P2 lift frame to approximately 3.5' [1.07 m] wide.

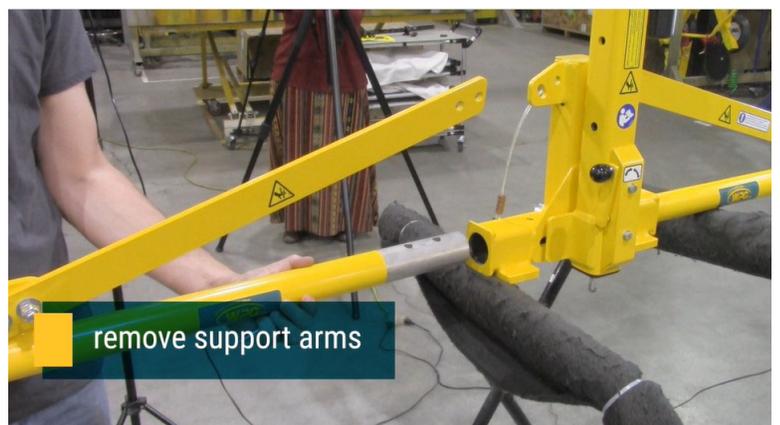
*Note: Support arm braces are not required for this adaptation and are not included in a FA235 conversion kit.*



To install a Lift Frame Adapter conversion kit, follow the steps under "CHANGING SUPPORT ARMS" in the WPG video linked [here](#). The video begins with a demonstration of the previous P2 assembly steps.



*Note: If you are using a printed copy of these instructions, scan this QR code to access the video.*



# ASSEMBLY

## TO COMPLETE LIFTER ASSEMBLY

- 1) Use the hoisting equipment to raise the lifter. Remove the pad covers (fig. 1A) and save them for future use.



- 2) Connect the electrical connectors (figs. 2A-B and figs. 2C-D).

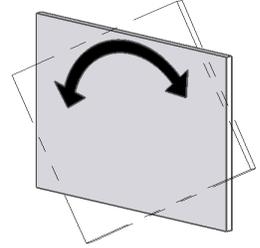
*Note: If you are assembling a P2 lifter, complete the connections on both channels.*



- 3) If a notification buzzer is part of a channel's power system, install or replace its 9-volt battery as directed in the lifter's *OPERATING INSTRUCTIONS*.
- 4) Perform tests as required under "TESTING" in the lifter's *OPERATING INSTRUCTIONS*.

# OPERATION

## TO ROTATE THE LOAD USING A P1 LIFTER



-  **Make sure load is positioned correctly on lifter (as directed in the lifter's OPERATING INSTRUCTIONS).**
-  **Never disengage rotation and tilt latches at the same time, because this could result in load damage or personal injury.**

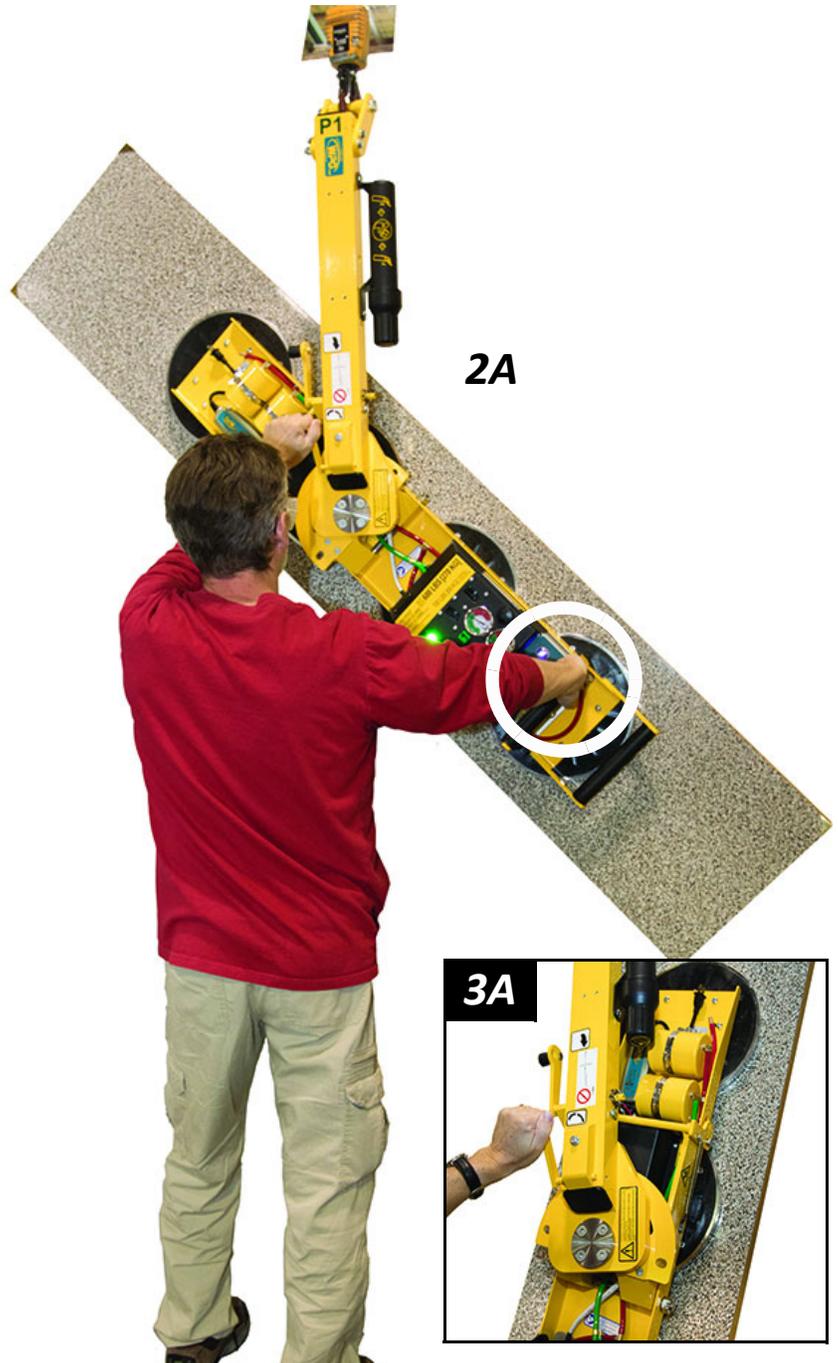
- 1) Make sure the load has enough clearance to rotate without contacting anyone or anything.
- 2) Use a control handle (circled in fig. 2A) to keep the load under control at all times.



**Unbalanced loads may rotate unexpectedly when latch is disengaged.**

- 3) Pull the rotation release lever (fig. 3A) to disengage the rotation latch, and rotate the load as required.
- 4) To stop rotation, let go of the lever and guide the load to the next stop.

*Note: Whenever rotation is not required, keep the rotation latch engaged, to prevent load damage or personal injury.*



# OPERATION

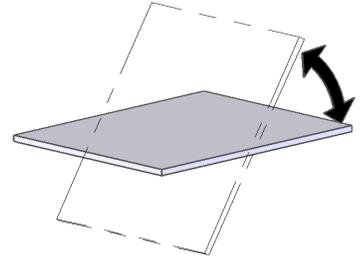
## TO TILT THE LOAD USING A P1 LIFTER



**Make sure load is positioned correctly on lifter (as directed in the lifter's OPERATING INSTRUCTIONS).**



**Never disengage rotation and tilt latches at the same time, because this could result in load damage or personal injury.**



- 1) Make sure the load has enough clearance to tilt without contacting anyone or anything.
- 2) Use a control handle (circled in fig. 2A) to keep the load under control at all times.



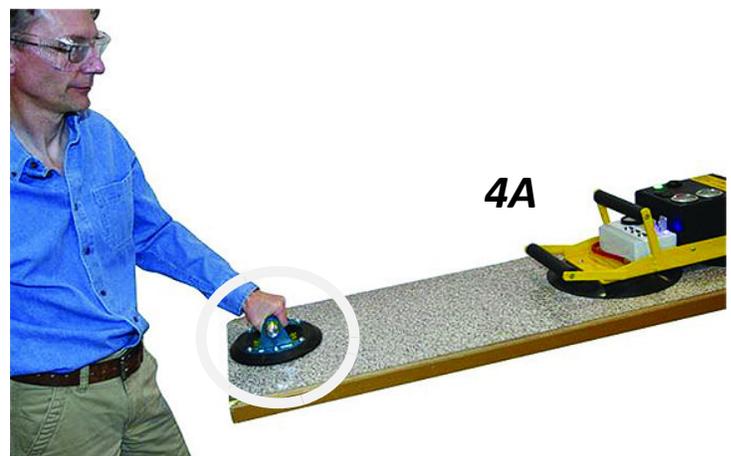
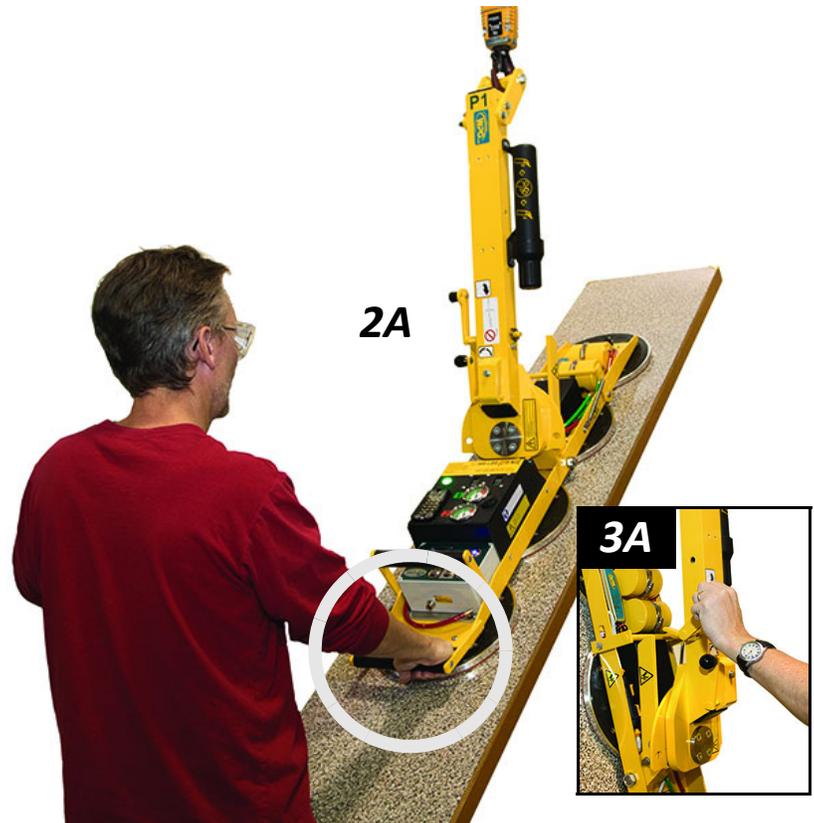
**Unbalanced loads may tilt unexpectedly when latch is disengaged.**

- 3) If the pad frame is latched, pull the tilt release lever (fig. 3A) to disengage the tilt latch. Then tilt the load as required.

*Note: See "INTENDED USE: LOAD CHARACTERISTICS" in the lifter's OPERATING INSTRUCTIONS for information about allowable overhang.*

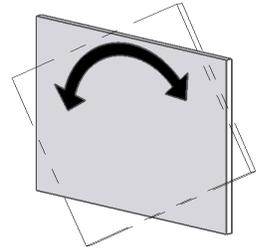
A load with overhang may force you to release the control handle as the load approaches the flat position. In this case, use a hand cup (circled in fig. 4A) or other appropriate means to control the load.

*Note: The pad frame automatically latches when tilted to the vertical position.*



# OPERATION

## TO ROTATE THE LOAD USING A P2 LIFTER



**Make sure load is positioned correctly on lifter (as directed in the lifter's OPERATING INSTRUCTIONS).**



**Never disengage rotation and tilt latches at the same time, because this could result in load damage or personal injury.**

- 1) Make sure the load has enough clearance to rotate without contacting anyone or anything.
- 2) Use a control handle (circled in fig. 2A) to keep the load under control at all times.



**Unbalanced loads may rotate unexpectedly when latch is disengaged.**

- 3) Pull the rotation release lever (fig. 3A) to disengage the rotation latch, and rotate the load as required.
- 4) To stop rotation, let go of the lever and guide the load to the next stop.

*Note: Whenever rotation is not required, keep the rotation latch engaged, to prevent load damage or personal injury.*



# OPERATION

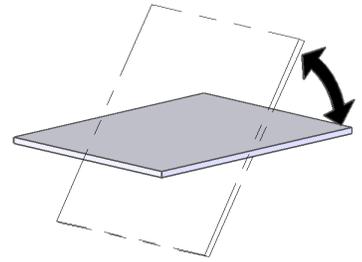
## TO TILT THE LOAD USING A P2 LIFTER



**Make sure load is positioned correctly on lifter (as directed in the lifter's OPERATING INSTRUCTIONS).**



**Never disengage rotation and tilt latches at the same time, because this could result in load damage or personal injury.**



- 1) Make sure the load has enough clearance to tilt without contacting anyone or anything.
- 2) Use a control handle (circled in fig. 2A) to keep the load under control.



**Unbalanced loads may tilt unexpectedly when latches are disengaged.**

- 3) If the pad frames are latched, pull the tilt release cable (fig. 3A) to disengage the tilt latches. Then tilt the load as required.

*Note: See "INTENDED USE: LOAD CHARACTERISTICS" in the lifter's OPERATING INSTRUCTIONS for information about allowable overhang.*



# OPERATION

A load with overhang may force you to release the control handle as the load approaches the flat position. In this case, use hand cups (fig. 4A) or other appropriate means to control the load.

*Note: The pad frames automatically latch when tilted to the vertical position.*

