The Knape and Vogt® Flat Panel TV Lift (PTVL-1) is uniquely suited for an extensive range of furniture designs and is easily installed in most furniture designed for flat panel TVs.

The PTVL-1 addresses the major concerns of furniture manufacturers by incorporating motorized lifts into their products.

**Design**

Modular construction permits simplified design programs and efficient production/manufacturing of furniture case-goods.

**Installation**

All components include the lift, lid opening mechanism, wire management, and safety devices are part of the modular design. A universal mounting bracket on the flat panel TV lift device allows the use of most commercial LCD/flat panel televisions, eliminating the need for expensive proprietary TV brackets.

**Features**

- **Easy Install:** Modular sub-cabinet construction
- **UL-Recognized:** Lift device components
- **Programmable:** Remote control included
- **1-Year Parts Warranty:** On all lift device components
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CAUTION!

THE PTVL-1 IS DESIGNED TO ACCOMMODATE:
WALL-MOUNTABLE FLAT PANEL TV’S ONLY
MAXIMUM TV DIMENSIONS:
60” W  6” D  36” H

If your TV is not a typical flat panel television (small distance between mounting holes or curved back) additional mounting accessories may be needed. This unit is designed for stationary in-cabinet use. It can not be suspended upside down or placed on casters.

PTVL-1 Customer Service and Information: 1-616-459-3311 or 1-800-253-1561

Basic Components

1. Base Drive Unit
2. Cabinet Lift Bracket
3. TV Mounting Bracket
4. Control box kit

If you have purchased a piece of furniture with the base drive unit already installed proceed to Installation: Part B - Lift Unit.
Part A - Base Drive Unit

If your base drive unit is not installed to the bottom of the cabinet, use the twelve #10 x 1-1/4" wood screws to fasten it to the bottom and/or side of the cabinet. The base of the cabinet must be 1" thick or greater and support 200 lbs. for secure installation of the unit. Unit should be centered in the case.

A1. Secure base unit with 12 screws as shown.

A2. Remove control box, cords, power switch, and remote control from box. Secure control box to bottom of the case with four screws.

Part B - Hooking Up Lift Unit

The installation of a flat panel TV onto this lift device may need to be done by an installer with an assistant. This is a decision to be made by each owner, based on their ability and comfort level. Do not attempt to perform the installation alone. Before beginning the installation, please read all instructions carefully.

CAUTION!: Position cabinet near the desired location and level it prior to mounting the TV.

B1. Plug in cables to connect the control box to the lifting columns. "Male" cables plug into "female" cables on columns and into "female" receptacle in control box.

B2. Plug in I/R remote switch assembly to control box using the RJ 45 receptacle.

B3. Plug female end of main power cord into the control box.

B4. Completed plug assembly looks like this picture:

B5. Test lift unit after the connecting all the cords and the main power cord to an outlet. Press and hold the "down" arrow on the corded hand switch for 5 seconds. This will initiate the system and balance all three columns. Then press the "up" arrow and unit should move upward.

If unit does not work, refer to Part G.

B6. Leave the lift unit in the "up" position to install TV with lid lifter bracket.

NOTE: You may wish to adjust the height when you install the TV at step D3.
Part C - TV Adaptor Plate

Tools needed for TV adaptor plate installation:

- Power drill with optional 8" extension
- Level
- Tape measure
- Adjustable wrench or socket set
- Small Phillips screwdriver

C1. Remove the contents from the box.

Contents of adaptor plate box

C2. Position flat panel on the floor so rear panel is easily accessible.

Flat Panel on floor

C3. Identify mounting holes on rear of flat panel monitor. Refer to owners manual for mounting locations. YOU MUST USE ALL OF THE MANUFACTURER’S RECOMMENDED MOUNTING HOLES. Improper attachment of the adapter to the flat panel may result in damage to the flat panel or personal injury.

C4. Determine the proper set of rails to use; long OR short. Most rails will be mounted vertically. All the flat panel’s mounting holes must be accessible through the inner slots (see rail image) on the rails used, and whether or not the rails will be seen from the front side of the flat panel.

C5. Review the included cross reference list sheet to determine which mounting hardware is needed (if your TV is not on the list, please contact www.OmniMount.com). If the rear of the flat panel monitor fastening locations are recessed, find the appropriate (See cross-reference list) spacing hardware in the supplied kit to keep the mount parallel to the back of the flat panel monitor.

CAUTION:
EVALUATE DEPTH OF HARDWARE ENGAGEMENT (SEE THE TV OWNERS MANUAL). FAILURE TO USE CARE MAY RESULT IN MONITOR DAMAGE BY PIERCING INTERNAL COMPONENTS.

Omnimount Parts List

BAG 1: Hardware Kit, Multi Flat Panel Adaptor

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 x 1/2 Hex screw</td>
<td>8</td>
</tr>
<tr>
<td>Square Washer</td>
<td>8</td>
</tr>
<tr>
<td>9/16 x 1/2 length spacer (0.3 ID)</td>
<td>8</td>
</tr>
<tr>
<td>3/4 OD x 3/8 length spacer</td>
<td>8</td>
</tr>
<tr>
<td>5/8 x 1 length spacer (0.42 ID)</td>
<td>8</td>
</tr>
<tr>
<td>5/32 Hex Key (Allen)</td>
<td>1</td>
</tr>
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</table>

BAG 2: Hardware Kit, UPL Secondary

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M4 x 16mm PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M4 x 25mm PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M4 x 45 PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M5 x 15 MM PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M5 x 45 PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M6 x 16 MM PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M8 x 16 MM PPHD Screw</td>
<td>6</td>
</tr>
<tr>
<td>M8 x 1.25 x 20 PPHD Screw</td>
<td>6</td>
</tr>
<tr>
<td>M8 x 25 PPHD Screw</td>
<td>8</td>
</tr>
<tr>
<td>M8 x 35 PPHD Screw</td>
<td>6</td>
</tr>
<tr>
<td>M8 x 45 PPHD Screw</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Every effort has been made to provide accurate and error-free assembly and installation information. Omnimount Systems disclaims liability for any difficulties arising from the interpretation of information contained in these instructions.

Description | Quantity
---|---
Back plate | 1
Channel | 2
Slider | 4
Rail, Vertical 25 In | 2
Rail, Vertical 18 IN | 2
ALN BTN HD 1/4-20 x 1/2 SST | 14
Washer 1/4ID x 1/2OD SS | 4
Nut, 1/4-20 AN NYLOCK | 4
C6. Remove the four sliders from the channels of the back plate assembly by removing the 8 (2 per slider) button head cap screws placed for shipping. Save screws. See image.

C7. Assemble the rails and sliders – Two sliders will attach to each rail, use the 8 (two screws are used to attach each slider) button head cap screws from kit, tighten securely. Be sure the sliders and rails are properly assembled. There are 4 tabs on each rail, two of which are notched. The neck of the outer tab on each slider must fit into one of these notches (see image).

C8. Do not remove the center two screws, but check that they are tightened securely.

C9. Fit the ends of the sliders into the ends of channels on the back plate assembly. When both rail/slider assemblies are in the channels, expand or reduce the width of the adapter's rail/slider assemblies to align them with the flat panel's mounting locations. The distance from the center of the back plate assembly to both rail/sliders should be equal.

C10. Use the button head cap screws (saved from step C6) to secure both rail/slider assemblies to the channels on the back plate assembly. YOU MUST USE AT LEAST TWO SCREWS PER ARM. Only snug these screws for now. Slight adjustment may be required for alignment.

C11. When mounting the adapter to the flat panel, use the determined hardware from step C5 and a square washer for each screw used (see image). There are two holes in each square washer, use the smallest hole that the screws will fit in. CAREFULLY mount the adapter to the back of the flat panel. Tighten mounting hardware according to manufacturers specification.

OVER-TIGHTENING SCREWS MAY CAUSE DAMAGE TO PLASMA TV.

C12. Once the adapter and is properly attached to the back of the TV, tighten all screws.
Part D - Lid Lifter

D1. Place the Lid Lifter on the back of the Universal Mounting Bracket with the roller facing to the top of the TV. Fasten the Lid Lifter to the Universal Mounting Bracket with four hex drive button head screws. Attach the screws through the vertical slots in the back of the Lid Lifter into the welded “nutserts” found in the back of the Universal Mounting Bracket. Refer to the picture below.

D2. Adjust the vertical position of the roller guide so it is 1/2” above the top of the TV by loosening the four screws shown in picture below.

D3. USING AN ASSISTANT, mount the TV assembly by setting it down on the two threaded pins located at the top of the center column. Refer to picture below. Attach the hex nuts to the threaded pins and add the two additional Allen drive bolts to secure the TV.

D4. Make sure the TV cords are installed before PTVL-1 use.

Part E - Infra-Red Remote Control

E1. Test lift unit after connecting all the cords and the main power cord to an outlet. Press and hold the “down” arrow on the corded hand switch for 5 seconds. This will initiate the system and balance all three columns. Then press the “up” arrow. The unit should move upward. If unit does not work, refer to Part G.

E2. Determine the location of the infra-red (IR) extension eye and drill a 12mm mounting hole. (Note: earlier version of IR extension eye required a 10mm mounting hole.) Install the IR extension eye in the mounting hole and plug it into the power switch unit.

E3. The PTVL-1 comes with a remote control that will drive the lift drive. This is a “line of sight” remote, so the infra-red extension eye (or I/R receiver) must be visible. Pressing the “UP” arrow will drive the lift mechanism to it’s highest position. You do not need hold the button down continuously while the lift is moving. Pressing the “DOWN” arrow will drive the lift unit down into the cabinet.

E4. Go to Part F and follow the instructions to program your PTVL-1.

NOTE: Programming must be done with the corded hand switch only.

NOTE: Once the IR extension cord is plugged into the power switch unit, the IR receiver in the power switch unit is disabled. The IR signal now must use the extension eye to operate the unit.
Part F: Programming the "Up Stop"

The remote control will not work until the unit is initialized and operated once via the corded hand switch.

F1. To initialize the unit, hold the "down arrow" on the corded hand switch so the unit is at the lowest height level. Release the corded hand switch. Then again hold the "down arrow" on the corded hand switch for at least 5 seconds, then let go. You may notice a slight vibration as you are doing this, which is normal.

F2. To set the "up stop" height, press and hold the "up arrow" to the desired height with the corded hand switch, then immediately release and press the "down" arrow. The height is now set and now the remote control can be used to test the desired height.

F3. Using the remote control, test the system to insure the unit ends its travel at the "up stop" set by the corded hand switch.

NOTE: Using the "up" and "down" arrows on the corded hand switch again will change the programmed setting. After programming, only use the remote control to raise and lower the unit.

Part G: Solving Problems

F1. Re-initiate System.
If the PTVL-1 doesn’t operate, follow these steps to re-initiate the system:

1) Unplug the main power cord from the wall.

2) Unplug and then “re-plug” the main power cord, switch cable and actuator cables into the control box. Then make sure all the cables are securely plugged into the control box.

3) Plug the main power cord back into the wall.

4) Read A & B below to determine “where” the PTVL-1 is right now. Hold the “down arrow” on the corded hand switch for at least 5 seconds. Let go and wait 5 more seconds and then press “up arrow”.

B. If the table is in the lowest position already, hold the “down arrow” on the corded hand switch for at least 5 seconds, let go and wait 5 more seconds and press “up arrow”; if the PTVL-1 works, things are good; if not, the control box needs to be replaced.

F2. Replace Control Box.
Loosen the four screws to the control box.

A. If the PTVL-1 moves down, let it go to the lowest position, and continue to hold for 5 seconds after it reaches the bottom of it’s travel. Let go and wait 5 more seconds, then hold the “down arrow” on the corded hand switch for at least 5 seconds so the system will re-initialize. Then press “up arrow”; if the PTVL-1 works, things are good; if not, the control box needs to be replaced.

Unplug the control box power cord, switch cord and the white tipped cable plugs.

Unplug cords

Remove the old (non-working) control box from the cabinet. Take your new control box and install it inside the cabinet. Reconnect control box and lift unit per Part B.

Re-install per Part B
Technical Information

<table>
<thead>
<tr>
<th>Number</th>
<th>Max. TV Specifications</th>
<th>Travel Distance</th>
<th>Lift Speed</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTVL-1</td>
<td>60” Wide* / 150 lbs.</td>
<td>39”</td>
<td>1-1/4” per Sec.</td>
<td>Black Powder-Coat</td>
</tr>
</tbody>
</table>

Recommended Interior Cabinet Dimensions

<table>
<thead>
<tr>
<th>Width:</th>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1/4”</td>
<td>41”</td>
<td>TV Width* + 6”</td>
</tr>
<tr>
<td>Depth:</td>
<td>30-1/2”</td>
<td>TV Depth* + 1”</td>
</tr>
<tr>
<td>Height (lowered position):</td>
<td>30-1/2”</td>
<td>38-1/2”</td>
</tr>
</tbody>
</table>

Master Carton Size

<table>
<thead>
<tr>
<th>Width:</th>
<th>43-7/8”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth:</td>
<td>14-3/6”</td>
</tr>
<tr>
<td>Height:</td>
<td>26-3/4”</td>
</tr>
</tbody>
</table>

Shipping Weight

- 87 lbs.

Current Draw

- Less than 3 AMPS

Recommended Interior Cabinet Dimensions

<table>
<thead>
<tr>
<th>MIN.</th>
<th>MAX.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width:</td>
<td>TV Width* + 6”</td>
</tr>
<tr>
<td>Depth:</td>
<td>TV Depth* + 1”</td>
</tr>
<tr>
<td>Height (lowered position):</td>
<td>38-1/2”</td>
</tr>
</tbody>
</table>

Installation Notes

- Pre-assembled base unit reduces valuable production time and allows for slide-in or drop-down installation
- PTVL fastens to bottom and/or side of cabinet with (12) #10 x 1-1/4” Phillips drive screws (included with hardware pack)
- Base material must be min. 1” thick with screw retention to support 235 lbs.
- Cabinet will require ventilation > 10 CFM for adequate heat dissipation
- Motor control box should be mounted for future accessibility
- Motor control box mounts with (4) #10-1” Phillips drive screws (included)
- I/R receiver must be visible for line of sight remote control unit
- PTVL-1 includes Roller-Hinged Lid Lifter only

Warranty Period: One year for all lift device components.