

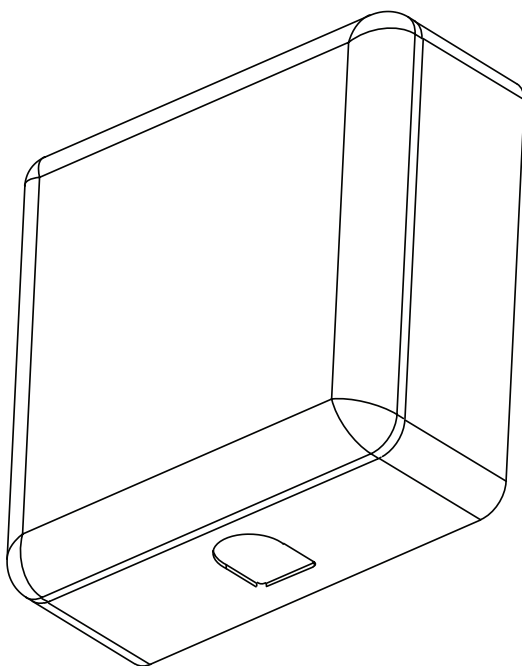


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WILLOW

**HAND DRYER**

.....



ALP405-SERIES

**USER GUIDE**



# Thank you for your purchase.

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**Alpine maintains a strong practice  
of ongoing development of products  
and commercial research.**

.....

Combining commitment to the customer, design innovation and skilled, dedicated workforces, they have produced a range of products that are an essential part of every commercial facility. Every product is designed to the highest standards, enabling you to get your requirements done in a reliable and cost-effective way.

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# INTRODUCTION

Thank you for purchasing Alpine Industries' Willow Hand Dryer. This high-velocity hand dryer is extremely compact and dries hands in seconds. It was specifically designed and built for use in industrial settings and commercial offices.

An on-board infrared sensor detects hands and automatically turns the dryer on. The Willow Hand Dryer also incorporates a replaceable, High Efficiency Particulate Air (HEPA) filter.

## Features

- Touch Free Operation
- 8 Second Approximate Drying Time
- HEPA Filter Reduces Contaminates
- Equipped with Air Speed Adjustment For Quiet Operation
- Durable, Vandal Resistant Stainless Steel Cover
- Simple Mounting For Easy Installation
- Conventional Wall Plug and Hard-wire Option

## WARNING

This manual must be read carefully before attempting to install your Willow Hand Dryer. Not following safety rules or instructions outlined in this manual can cause the hand dryer unit to not operate properly and could result in property damage, serious bodily injury and/or death. Alpine Industries will not be liable for any damages caused by failure to comply with the installation and operating instructions outlined in this manual or damages caused by improper use. Improper use or failure to comply with installation and operating instructions voids the warranty on this hand dryer. Never remove the unit cover unless electricity is turned off. Make sure both air inlet and exit grills are always kept free of obstruction to ensure proper air flow. If you have any questions regarding the installation or operation of this hand dryer, please contain an Alpine representative.

# Specifications

## 120V Version

**High Point:** 120V/ 1400W/11A

**Low Point:** 120V/ 470W/3.9A

**High Point:** Motor = 600W, Heat Element = 800W

**Low Point:** Motor = 230W, Heat Element = 240W

## 220V Version

**High Point:** 220V/ 1400W/6A

**Low Point:** 220V/ 320W/1.4A

**High Point:** Motor = 600W, Heat Element = 800W

**Low Point:** Motor = 230W, Heat Element = 240W

## Product Breakdown

**Weight:** 7.16 lb.

**Product Type:** High Speed Sensor Activated

**Material:** 304 Stainless Steel

**Dry Time:** 8 sec.

**Decibel Rating:** 80dB

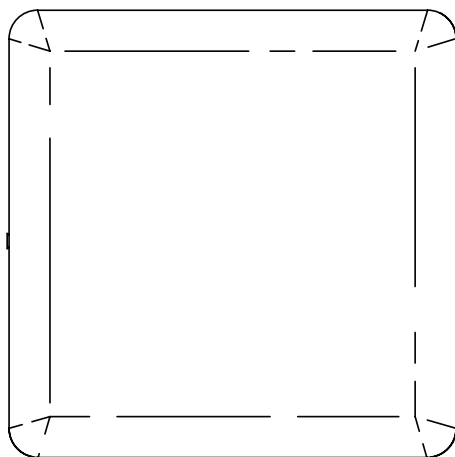
**Blower Rotation Rate:** 25,000rpm

**Air Speed:** \*100-200 mph

**Size:** 12.63" x 11.25" x 4.01"

# Parts

1

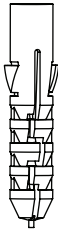



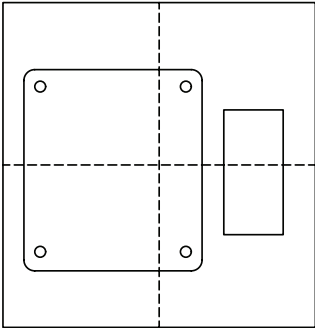


Dryer

## Please Note:

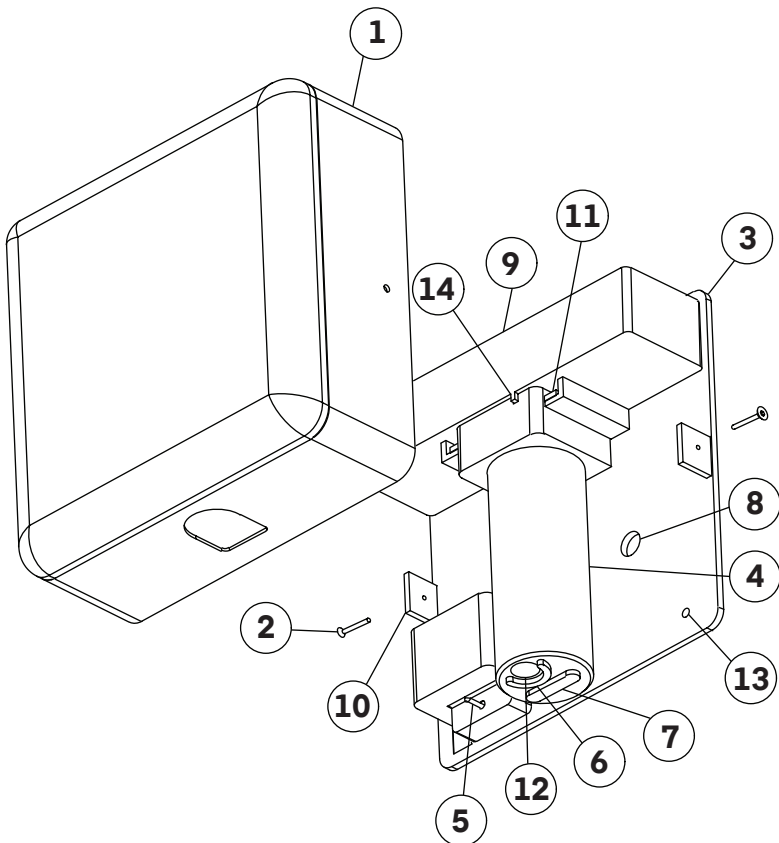
- Generic metal screws have been provided with this product. These may be used in conjunction with the anchors for most types of wall/wall studs.
- Be advised that other screw types may be needed depending on your mounting surface, such as: carbide-tip drill bit for masonry walls with tile, or wood screws for wooden walls.
- A hex wrench is included to aid in the assembly process.

# Parts

<b>2</b>  Wall Anchor (x4)	<b>3</b>  Screws (x4)
<b>4</b>  Bushing (x4)	<b>5</b>  Washer (x4)
<b>6</b> Installation Template 	

# Components

- |                   |                    |
|-------------------|--------------------|
| 1. Cover          | 8. Knock Out Plate |
| 2. Hex Screws     | 9. HEPA Filter     |
| 3. Base Plate     | 10. Cover Tabs     |
| 4. Blower Motor   | 11. Filter Tabs    |
| 5. Speed Adjuster | 12. Blower Outlet  |
| 6. LED            | 13. Mount Holes    |
| 7. IR Sensor      | 14. Slot           |



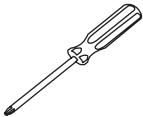
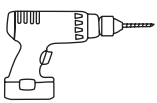



# Before Installation

## CAUTION

- Make sure that no electrical wiring or pipe runs are located in the wall cavity behind where this dryer is to be installed. If installing with the hard-wire option, de-energize all electrical lines before installation begins.
  - Hard-wire installation should only be attempted by a licensed electrician.
1. Remove all packing material (recycling is recommended)
  2. Carefully remove the hand dryer from the shipping carton.
  3. Inspect carefully for any damage that may have occurred during transit.
  4. Check for any loose, missing or damaged parts.
    - a. If the hand dryer is damaged or missing parts contact the retailer.

## Tools Required (But Not Included):

		
Philips head screwdriver	Drill and Drill Bit	Pencil

# Installing Dryer

## Step 1:

1. Select a dedicated circuit breaker for the dryer.
2. Select a wall location height from floor to bottom of dryer according to the recommendations below:
  - a. Men: 45" (114 cm)
  - b. Women: 43" (109 cm)
  - c. Teenage: 41" (104 cm)
  - d. Children: 35" (89 cm)
  - e. Disabled: 37" (94 cm)
3. Be sure there is no obstruction between floor and dryer.
  - a. If mounted over countertop, place dryer no less than 16" above the counter.
  - b. Do not install dryer over wash basin.

## Step 2:

1. Mark wall at appropriate mounting height according to the height guide above.
2. Hold the template (supplied) against bare wall.
  - a. Make sure that the line of template representing bottom of dryer is horizontal.
  - b. Mark location of screws with pencil.

## Step 3:

1. Use the included hex wrench against bare wall.
  - a. Make sure that the line of template representing bottom of dryer is horizontal.
  - b. Mark location of screws with pencil.
2. If electrical wiring entry is made from rear, remove the pre-formed knock-out from the base plate.
3. Be sure to match the brown (neutral), blue (power), and yellow (ground) wires when connecting directly to a gang box.

## Step 4:

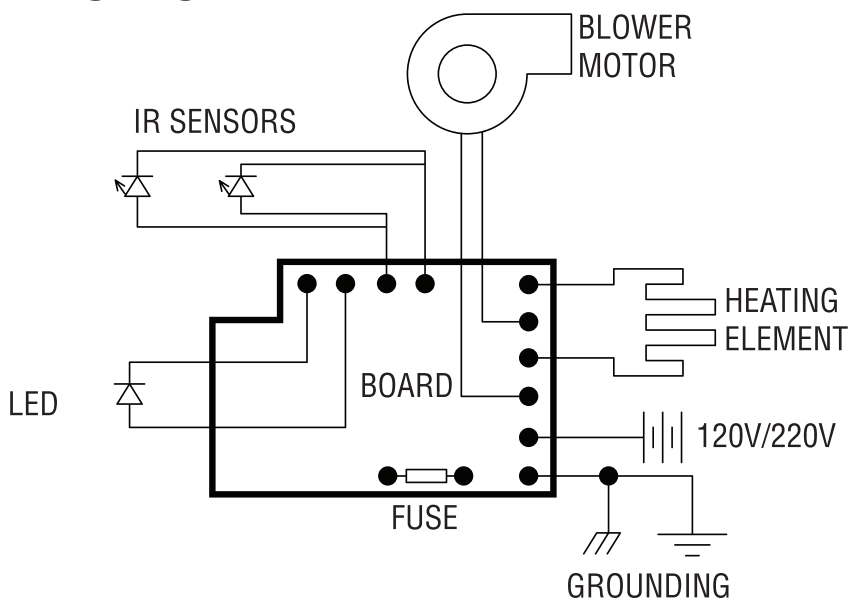
1. Insert rubber bushings (supplied) into rear corners of back plate if desired to keep dryer from contacting wall.
2. Attach base plate to the wall at the 4 points previously marked using the installation map.

# Installing Dryer

## Step 5:

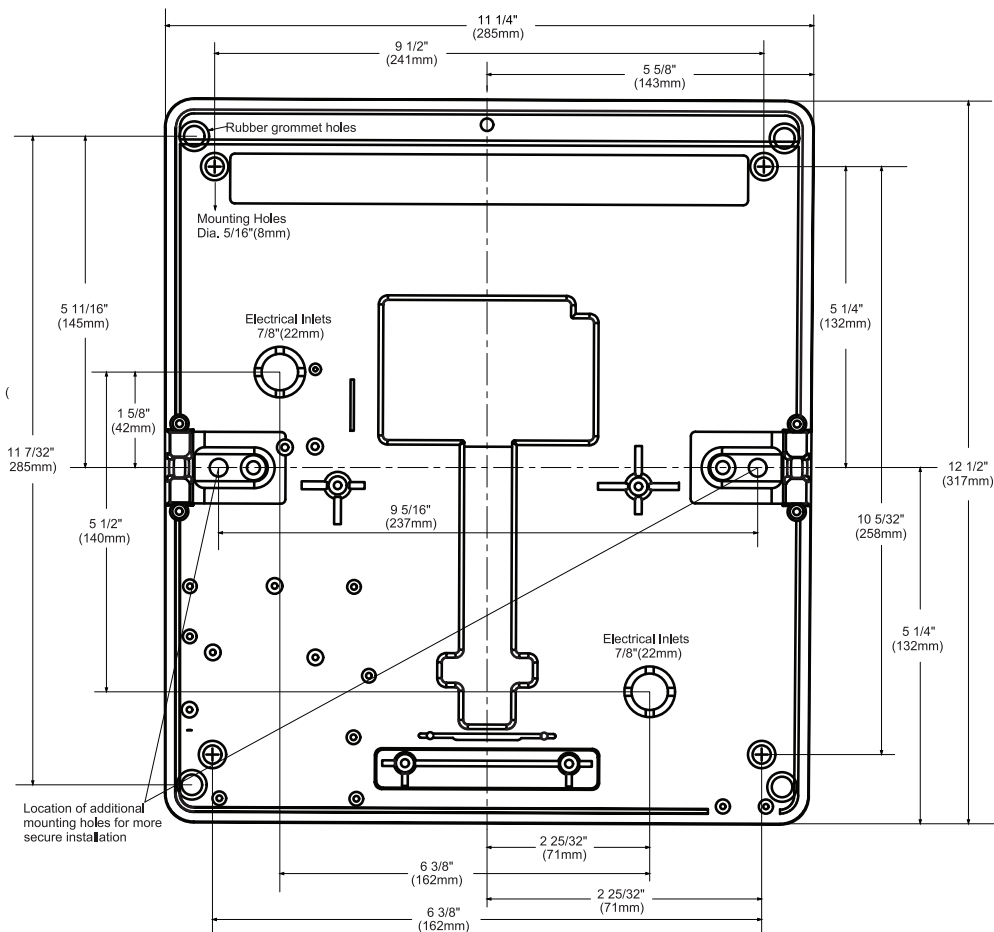
1. Attach cover to the base plate (push bottom in first) and replace screws previously removed from cover using hex wrench.
2. Restore power and test for proper operation.

## Wiring Diagram



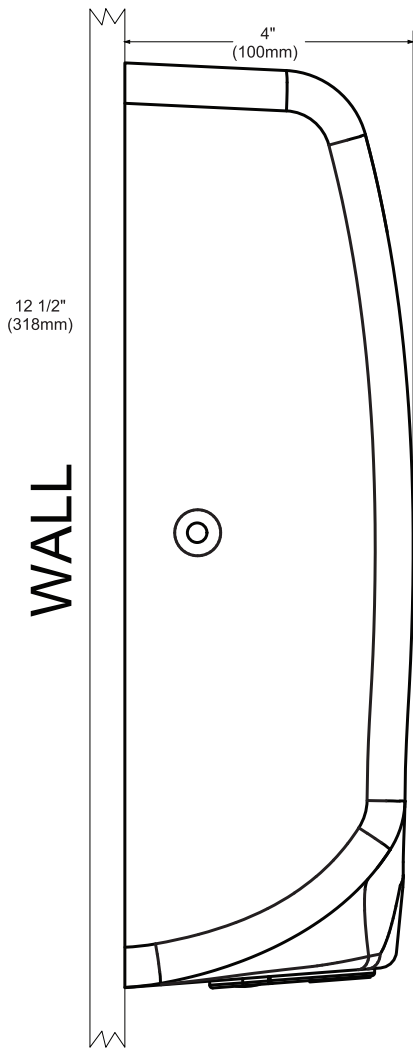
# Installing Dryer

## Back Plate Diagram



# Installing Dryer

## Back Plate Diagram (continued)



# Maintenance

## Filter

- Examining and changing a HEPA filter regularly keeps hand dryers working efficiently.
  - The service life of your HEPA filter depends on the frequency of use and the environment your hand dryer is in.
- High traffic/high usage environments high in dust or debris will need more frequent inspection and replacement of the HEPA filter.
  - The HEPA filter should be inspected at least 4 times per year in a moderately trafficked, normal washroom environment.
- In the case of high traffic, or environments with excessive lint, dust and debris, we recommend monthly inspection of the HEPA filter.
  - The HEPA filter should be replaced whenever visual examination shows excessive build-up of lint, dust or debris.
  - Operating a hand dryer with an excessively dirty or clogged filter can cause damage to the unit.
- HEPA filters cannot be cleaned and re-used, it must be replaced.
  - Do not clean filter or allow it to come in contact with water.

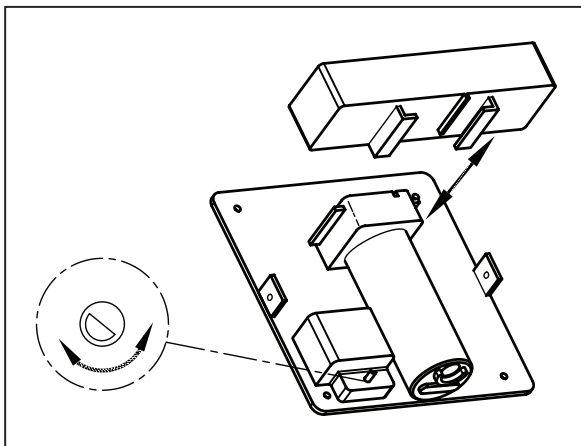
## Replacing The Filter

1. Remove the cover of the dryer.
2. Slide the filter out of the back plate.
3. Insert the new filter by aligning it with the filter tags and slot on the back plate.

# Maintenance

## Change to Adjusting Air Speed

1. Turn the air speed adjustment knob to the desired flow rate, as pictured below.
  - a. Turn it clockwise for higher speed.
  - b. Turn it counter-clockwise for lower speed.



## Cleaning

1. Unplug Only use a damp rag to wipe down the exterior cover of the dryer unit.
  - a. Never submerge the dryer unit.
  - b. Use a dry cloth to wipe down the LED and IR sensors.
2. Inspect the HEPA filter but do not clean it.

# Troubleshooting

- The procedures in these instructions are intended for use only by a certified electrician. Lay persons should not attempt to trouble shoot the dryer and should contact their local electric service technician.

## Dryer Does Not Turn On

1. Check the power to the unit and connections.
  - a. Verify if the dryer is receiving the correct voltage at the Terminal Block.
2. Check for loose, disconnected or improper wiring.
  - a. Ensure the sensor wires are all well connected.
3. If you have followed the above steps and your dryer is still not working, place your hand under the sensor and check for the following:
  - a. If the LED blue light turns on, but the dryer isn't blowing air, you will need a new circuit board.
  - b. If the LED blue light does not turn on, the sensor and program board needs to be replaced.
    - i. If it's still not working after replacement, the main circuit board will need replacing.
  - c. If after the above steps are followed and the dryer is still not working, you will need a motor replacement.



# Troubleshooting

## Dryer Does Not Shut Off

1. It may be mounted too close to a counter or object and has gone into lockout.
  - a. Check for loose, disconnected or improper wiring at the control assembly (refer to wiring diagram sheet).
2. Replace the sensor and the program board.

## Dryer Does Not Always Turn On or Turns On By Itself:

1. It may be mounted too close to a counter or object and has gone into lockout.
  - a. If relocating appliance is not possible, adjust the range of the sensor.
2. Check for foreign material on optical sensor next to air outlet.
3. Check for loose, disconnected or improper wiring at control assembly (refer to wiring diagram sheet).
4. Replace the sensor and the program board.

## Dryer Blows Only Cold Air

1. Check for loose connections to the heating element (refer to wiring diagram sheet).
2. Replace the heating element.

# Troubleshooting

## Dryer Has Loss of Air Volume

1. Check motor speed setting on control (if supplied).
2. Check for slow running motor or burning smell.
  - a. If present replace the motor.
3. Check for lint buildup at the filter or air inlet holes.
  - a. If so, replace filter and clean air inlet.

# Warranty

1. Adir Corp (the "Company" or "Tiger Companies") warrants to the purchaser that the product will be free from defects in workmanship and materials for a period of 5 years from the date of purchase. The warranty period is not extended if we repair, replace, exchange, or provide a refund for the product (as determined in our sole discretion). We may change the availability of this limited warranty at our discretion, but any changes will not be retroactive.
2. These warranties are not assignable or transferable to any other person, including, without limitation, any subsequent owner or other transferee of the product.
3. This Warranty does not apply to: (a) damage caused by misuse, tampering, abuse, neglect, or accident; (b) damage caused by improper installation, modification, or service; (c) alteration of the serial number; or (d) use that violates the instructions furnished by the Company will void this warranty.
4. The sole responsibility of the Company shall be limited to (a) the repair or replacement (in its sole discretion) of any component of the product which fails to conform to this; (b) a refund the purchase price of such product (in its sole discretion), at no cost to the purchaser for the period of the warranty, or (c) an exchange for a similar product, comparable in function and price.
5. Contact the Company directly at 1-(800)-805-1790 to obtain service under this warranty. If it becomes applicable to send a defective product to the Company, a Return Authorization Number must first be obtained from the Company. In order to obtain service under this warranty, purchaser may be required to provide the Company with the following items (a) proof of purchase, (b) photographs and or videos (of the damage, and (c) a written testimonial describing the defect.
6. Products shipped without prior Return Authorization and Return Authorization Number may not be accepted, and the Company will not be responsible for their disposition and/or cost of return to the owner.
7. The Company will not assume any responsibility for any loss or damage incurred in shipping and or delivery.
8. The product(s) must be returned within 14 calendar days of receiving the return authorization from the Company and must include the original proof of purchase for the warranty to be honored.
9. Any implied warranties that the purchaser may have are limited to the duration of the warranties described above. There are no further warranties that extend or apply beyond the face hereof, and the Company expressly disclaims and excludes any and all warranties of merchantability or fitness for a particular purpose. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.
10. THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND THE COMPANY'S ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE PRODUCT, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATION MAY NOT APPLY TO YOU.
11. This warranty gives you specific legal rights, and you may also have additional rights which vary from state to state.



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