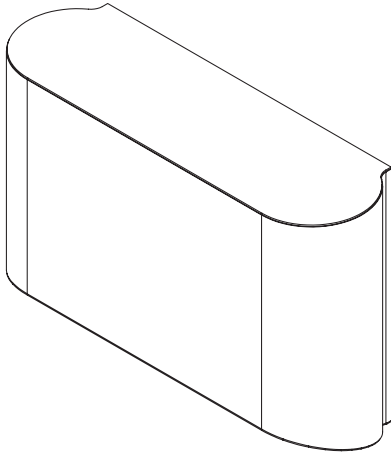


# Installation and Maintenance Manual

## Elvari™ Surface-Mounted ADA Compliant Hand Dryer

2B4 Series



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[Scan or click code to view Installation Guide \(English\)](#)



[Scan or click code to view Installation Guide \(French\)](#)



[Scan or click code to view Installation Guide \(Spanish\)](#)



[Scan or click code to view Installation Guide \(Arabic\)](#)



**Read the instructions in this manual before beginning installation. Save these instructions and refer to them for inspection, maintenance, and troubleshooting information.**

For questions regarding the operation, installation or maintenance of this product, visit [bradleycorp.com](http://bradleycorp.com) or call 800.BRADLEY (800.272.3539). Product warranties and parts information may also be found under "Resources" on our website at [bradleycorp.com](http://bradleycorp.com).



## Safety Information

### Warning

This product is intended for installation by a qualified service person. Use AWG No. 14 (2.0mm<sup>2</sup>) solid conductor for wiring.

Failure to properly ground unit could result in severe electrical shock and/or death.

Disconnect power at the service breaker before installing or servicing. Full pole disconnection device must be incorporated in the fixed wiring in accordance with the wiring rules. NOT FOR HOUSEHOLD USE - MAY CAUSE BURNS.

All units must be supplied with a 3-wire service. The ground wire must be connected to the dryer's backplate.

### Important

We do not recommend installing this dryer above a hand washing basin. If you are installing this dryer above a basin, please make sure that reflection will not occur as this could affect the hand dryer activation.

## Compliance Information

Models: 2B4-2110000, 2B4-2114900, comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**⚠ WARNING Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.**

Notes: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

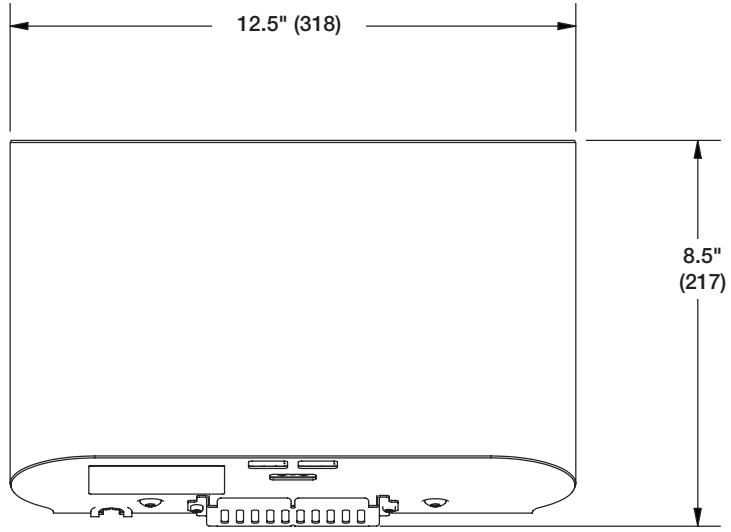
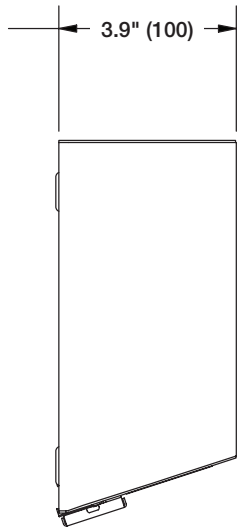
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The responsible party for this product is Bradley Corporation. Address: W142N9101 Fountain Blvd, Menomonee Falls, WI, 53051. Phone number: (262)-251-6000.

# Dimensions

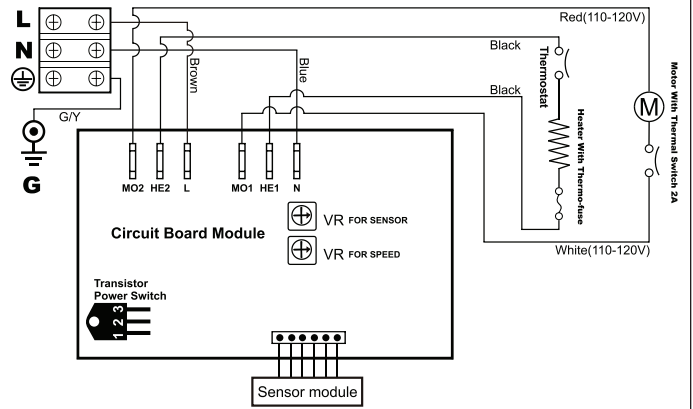
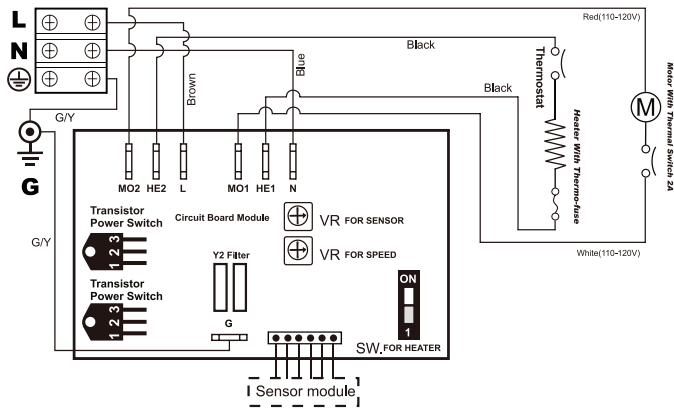
(mm)



# Circuit Diagrams

110~120V

220~240V

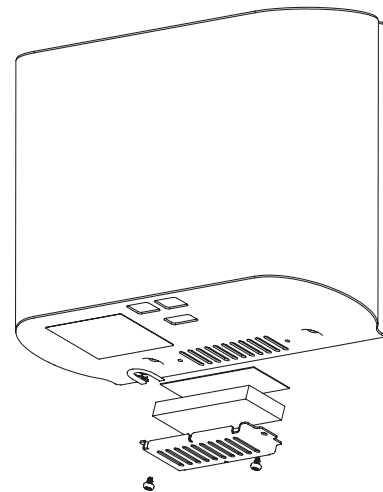


## Technical Specifications

Item Category	Performance Data
Operating Voltage	110–120VAC, 60 Hz, 7.6–8.4A, 0.84–1.0 kW 220–240VAC, 50/60 Hz, 3.8–4.2A, 0.84–1.0 kW
Air Output Temperature	131°F (55°C); Ambient Temp at 77°F (25°C)
Warm Air Speed Output	70–82 m/s (156.6–183.4 mi/h)
Dryer shall Deliver	105 m³/h (62 CFM)
Motor Type	325–500W, 16,000–29,000 RPM, Brush Type, Dual Ball Bearings
Motor Thermal Protection	Auto Resetting Thermostat turns unit off at 203°F (95°C)
Heater Element	325–500W, Adjustable
Heater Thermal Protection	Auto Resetting Thermostat turns unit off at 185°F (85°C) Thermal Fuse cuts unit off at 288°F (142°C)
Drying Time	10–15 seconds
Standby Power	0.3–0.4W
Circuit Operation	Infrared Automatic, Self Adjusting
Sensor Range	Standard 6.69" (170 ± 20 mm), Adjustable 4" to 9" (100 to 230 mm)
Timing Protection	60 second Auto Shutoff
Drip Proof	IP24◆
Isolation	Class 1
Cover Type	Stainless Steel
Net Weight	8.4 lb (3.8 kg)
Shipping Weight	9.2 lb (4.2 kg)
Unit Size	12.5" W x 8.5" H x 3.9" D (318mm x 217mm x 100mm)

### 1 Filter Installation

**A** Attach the filter kit to the underside of the hand dryer cover using the two screws (provided) as shown.



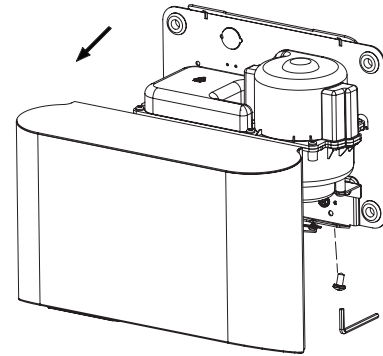
## 2 Installation

Verify the power supply breaker is in the OFF position. Installation must be carried out in accordance with the current edition of the local wiring regulations code having jurisdiction. Only a qualified electrician should perform the installation.

For two or more dryers, minimum spacing is 24" (610 mm) on center.

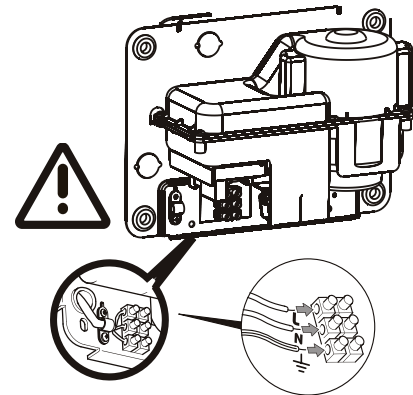
**A** Use the provided template (P20-247) to mark the four mounting hole locations and the electrical wire security entry. Drill holes.

**B** Use the provided L-key to remove and retain the two cover screws and cover.



A power cord is not provided. The unit must be hardwired. Connect the wire into the terminal via the knockout on the back plate at the location shown in the illustration.

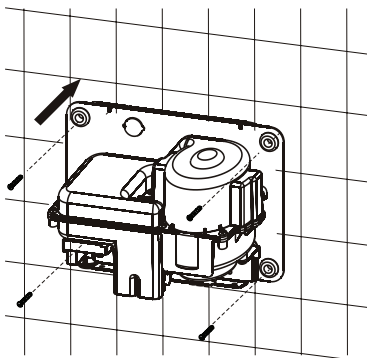
- C**
- Connect the live wire (colored black or dark) to the terminal block where marked "L".
  - Connect the neutral wire (colored white or light) to the terminal block where marked "N".
  - Connect the ground wire (colored green and yellow or green) to the green screw marked "⊕".



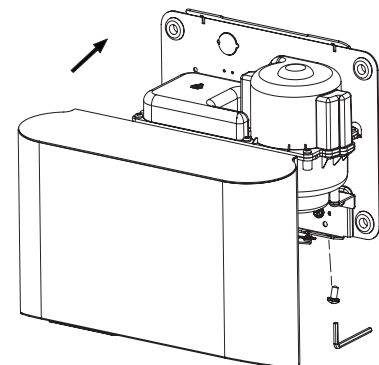
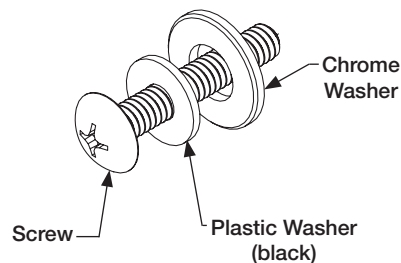
Colors of live and neutral wires depend on voltage of supply service.

**D** Fix the base plate to the wall using four ¼" x 1½" screws, plastic washers (black), and chrome washers in the order shown below.

**E** Reinstall the front cover and secure using the L key.



### Order of Fastener Installation



### 3 Operation



*This is a touchless activation.*

**A**

Shake excess water from hands.

**B**

Place hands under the air outlet to start operation.

**C**

Rub hands together lightly and rapidly until dry.



*Dryer automatically stops after hands are removed.*

### 4 Warm Air Speed Adjustment

**A**

Turn power off, loosen the cover screws, and remove the cover.

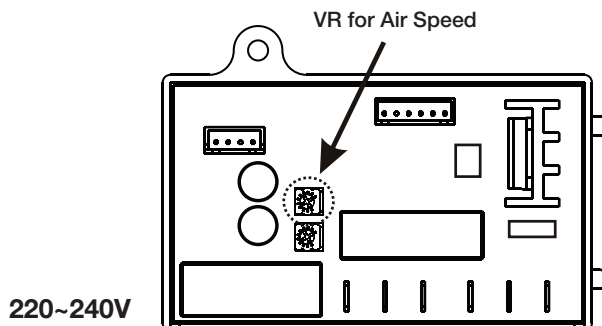
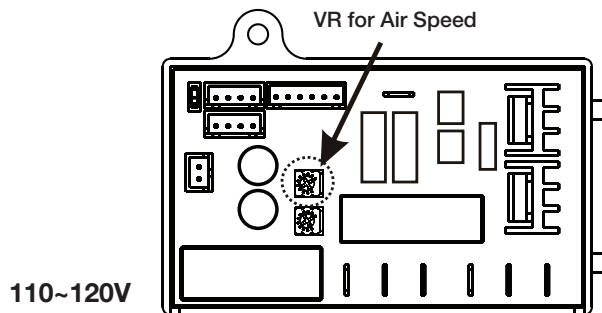
Use a small Phillips head screw driver or a plastic flat blade probe to turn the VR shaft.

**B**

- Gently turn clockwise (CW) to increase power to maximum (+) ↻.
- Gently turn counter-clockwise (CCW) to reduce power as required (-) ↻.



**DO NOT OVERTURN!**



## 5 Heater Element Switch ON/1



The heater element switch is only available for the 120V model.

**A** Turn power off, loosen the cover screws, and remove the cover.

Adjust the heater switch on the PCB using small plastic or wood flat blade probe.

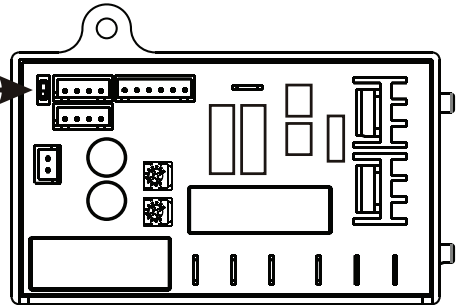
**B**

- Slide the switch to “ON”: heater on.
- Slide the switch to “1”: heater off.

SW for Heater



110~120V



## 6 Sensor Range Adjustment



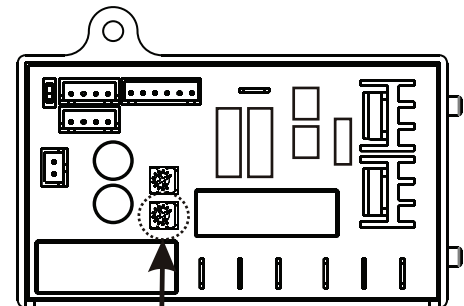
The sensor range is 4" to 9" (100 to 230 mm).  
Standard setting is 6.69" (170 ± 20 mm).

Adjust the sensor range using the VR for the sensor.

**A**

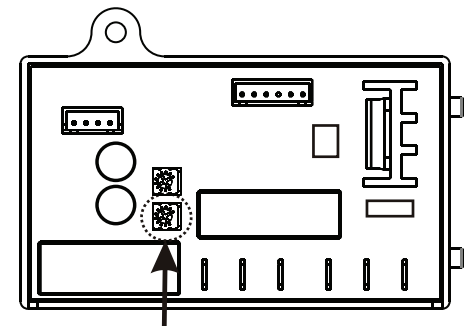
- Gently turn clockwise (CW) to increase the sensing range (+) ↻.
- Gently turn counter-clockwise (CCW) to decrease the sensing range (-) ↻.

110~120V



VR for Sensor

220~240V



VR for Sensor

## Cleaning and Maintenance



*Periodic cleaning of the unit is recommended to ensure optimal performance.*

1. Disconnect the electrical supply.
2. Remove the two cover mounting screws.
3. Remove the cover.
4. Clean all dust lint from the interior of the dryer.

### **⚠ CAUTION: Do not flush with water.**

5. Wipe the cover with a damp cloth and mild cleaning solution.  
Do not soak. Never use abrasives to clean the cover.
6. Replace the cover. Do not overtighten the screws.
7. Reconnect the electrical supply.

## Cleaning Stainless Steel

Scan or click the QR code below to view the Stainless Steel Washroom Accessories document.





## Troubleshooting: Initial Installation Failures

Problem	Cause
Dryer will not run.	Ensure the breaker supplying the dryer is operational. If it is, disconnect the power and remove the dryer cover. Take suitable precautions to avoid shock hazard. Reconnect the power and check for voltage at the terminal block. Verify the connections are correct.
Dryer cycles by itself or constantly runs.	Ensure there is not obstruction on or in front of the IR sensor. Clean any dirt or debris off of the sensor lens. If problem persists, replace sensor.
Dryer makes a loud noise and does not run for a complete cycle.	Ensure the voltage is correct. Dryer will make a loud humming noise if the input voltage is too high. Verify voltage requirement on the unit rating label and correct power supply as required. If CBM has been damaged, replace the CBM and IR sensor module.
Dryer runs but air stream is low pressure and/or low velocity	Ensure the power supply voltage is correct. Dryer will have a weak air stream if voltage is too low. Verify voltage requirement on the dryer rating label and correct power supply as needed.

## Troubleshooting: In-Service Failures

Problem	Cause
Dryer will not run.	Ensure the breaker supplying the dryer is operational.
	For 208–240V: Disconnect power from the unit, and disconnect the heater element from the circuit. Check resistance of element using a multimeter. If resistance is off-scale infinitely large, then replace the unit.
IR sensor only “sees” close range objects.	Ensure there is not obstruction on or in front of the IR sensor. Clean any dirt or debris off of the sensor lens. If problem persists, disconnect the power and remove the dryer cover. Take suitable precautions to avoid shock hazard. Reconnect the power and carefully adjust the sensitivity control (yellow shaft in blue box on CBM) to increase the sensing range.
Heater gets hot but no air stream is produced.	Replace the unit.
Dryer blows only cold air during a full cycle	Disconnect the power from the unit, and disconnect the heater element from the circuit. Check resistance of the element using a multimeter. If resistance is off-scale infinitely large, then replace the unit.
Air stream is low pressure and velocity	Check the output nozzle for obstructions. If none are present, disconnect the power. Remove the dryer cover. Remove any dust/lint build-up from the intake vent slots. If problem persists, replace the unit.