Hand Dryer
Operating Instructions and Parts Manual
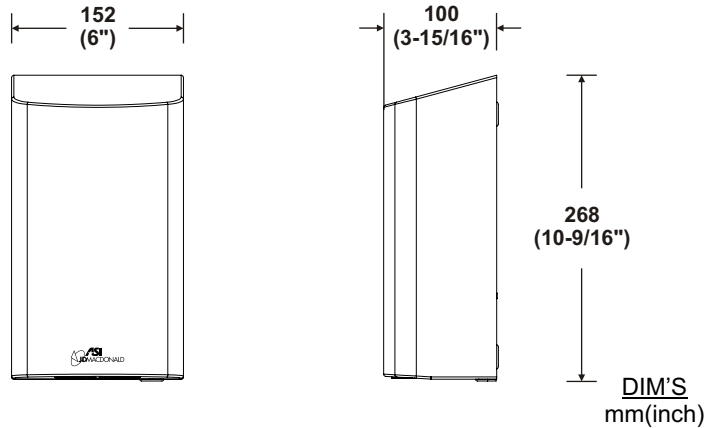### Surface-mounted ADA-compliant hand dryer

PLEASE CAREFULLY READ THROUGH THIS MANUAL BEFORE USING THE PRODUCT. OBSERVING ALL SAFETY INFORMATION, WARNINGS AND CAUTIONS WILL PROTECT YOURSELF AND OTHERS. PLEASE KEEP INSTRUCTIONS FOR FUTURE REFERENCE.

MODEL # 10-0194-2-00

MODEL # 10-0194-2-93

MODEL # 10-0194-2-41

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152 (6")
100 (3-15/16")
268 (10-9/16")

DIM'S mm(inch)

TECHNICAL SPECIFICATIONS

ITEM CATEGORY	PERFORMANCE DATA
Operating Voltage, 10-0194-2	220-240VAC, 50/60Hz, 4.2A, 1.0KW
Output Warm Air Volume	52-74m³/h [31-44CFM], adjustable by owner
Output Warm Air Temp	55°C when ambient Temp = 25°C. MAX adjustable by owner
Output Air Speed	184mph (269ft/s) [82m/s {295.2km/h}] - 262mph (384ft/s) [117m/s {421.2km/h}], adjustable by owner
Motor Type	500W, 22000-29000rpm, adjustable, brush type, dual ball bearings
Motor Thermal Protection	Auto resetting thermostat turns unit off at 95°C
Heater Element	Range adjustable by owner, 275-500 W
Heater Thermal Protection	Auto resetting thermostat turns heater element off at 85°C, resets at 75°C, thermal cut-off at 142°C
Drying Time	Less than 15 seconds
Standby Power	Less than 0.5W
Circuit Operation	Infrared automatic, self adjusting
Sensor Range	100mm to 230mm, adjustable; standard 170mm ± 20mm
Timing Protection	60 seconds auto shut off
Timing Duration	1 second delayed turn off after last sensor read
Sound Level	MIN 62.4dB-A to 67.4dB-A MAX @ 2m, adjustable by owner
Cover Type	18 gauge [.047", 1.2mm] thick 430 or 304 series stainless steel
Cover Finish	Powder coating white, matte black, or satin on stainless steel
Net Weight	3.3kg
Shipping Weight	3.7kg
Unit Size	268mm W x 152mm H x 100mm D [10-9/16" x 6" x 3-15/16"]

Input	Model	Motor			Heater		Total	
VAC	№	Vac	Inrush A(W)	Operating A(W)	Vac	Operating A(W)	Inrush A(W)	Operating A(W)
220	10-0194-2	220	2.86 (630)	1.91 (420)	220	1.91 (420)	4.77 (1050)	3.82 (840)
230	10-0194-2	230	2.99 (689)	2.00 (459)	230	2.00 (459)	4.99 (1148)	3.99 (918)
240	10-0194-2	240	3.13 (750)	2.08 (500)	240	2.08 (500)	5.21 (1250)	4.17 (1000)

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General safety information

⚠ WARNING This product is intended for installation by a qualified service person. Use AWG NO. 12 solid conductor for wiring.

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

⚠ WARNING Disconnect power at the service breaker before installing or servicing. **NOT FOR HOUSEHOLD USE - MAY CASE BURNS.**

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

-- **NOTE: Do not install dryer over washbasin** --

Installation - IMPORTANT - READ COMPLETELY BEFORE STARTING INSTALLATION PROCEDURE

1. Make sure power supply breaker is switched off. Installation must be carried out in accordance with the current edition of the local wiring regulations code having jurisdiction. Installation should be performed only by a qualified electrician.
2. Place template against wall at desired height (see mounting height recommendations) and mark locations of 4 mounting holes and wire service entry at knockout (KO) location.
   Note: For two or more dryers, dryers should be no closer than 24 inches (610 mm) on center.
3. Remove and retain 2 cover screws and cover.
4. a. **For in-wall (concealed) power supply - (See MT & IG 1200000000)**
      Provide supply wire to KO location according to local code and attach securely to chassis at KO with appropriate strain relief connector (not supplied).
   b. **For Surface Mounted Conduit (exposed) power supply -**
      Provide appropriate conduit to entry location according to local code and attach securely to chassis with correct strain relief connector (not supplied).
5. Drill four (4) holes at locations A, B, C and D of Ø5/16" (Ø8) Diameter x 1-3/8" (35mm) deep if using wall anchors supplied with unit. Install supplied anchors flush with wall face, or install other fastening system suitable for wall conditions (not supplied). Attach dryer to wall. For wood wall/studs use Ø1/4 inch (M6) screws at length that will ensure 1 inch (25 mm) min. stud penetration. For masonry walls use expansion bolts or anchors for Ø1/4 inch (M6) screws to ensure penetration 1/4 inch (6 mm) deeper than anchor. Shim if necessary to ensure base plate is flat against wall.
6. Connect supply and ground wires to terminal block where indicated or connect supply wires to terminal block where indicated and connect ground wire to base plate with ground screw.
   ### Connections:
   A. Connect the live wire (colored Brown, Red or Black) to the terminal block marked "L".
   B. Connect the neutral wire (colored Black, Blue, White or Grey) or connect the second live wire (colored Red or Orange) to the terminal block marked "N".
   C. Connect the ground wire to the terminal block marked "⏚" or to the green screw marked "⏚". Bare grounding (earth) wires should be sleeved with green and yellow or green tubing.
   Colors of live and neutral wires depend on voltage of supply service and requirements of Building and Electrical Code having jurisdiction.
7. Replace cover. Do not over-tighten screws.

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Installation Kit Included (find in carton)

1. Self-Threading screws 1/4" x 1-1/2" (M6 x 38) x 4 pcs
2. Metal Washer 3/8" x 7/8"x 1/16" (Ø10 x Ø22 x 1.6 thk) x 4 pcs
3. Nylon bushing x 4 pcs

Service Tool Included (with installation kit)

➤ Security hex wrench 4 mm x 1 pc (5/32" pin-hex will work if tool is lost)
Please unpack the unit and check the quantity of the above tool and kit.

Recommended mounting heights - from bottom edge of dryer above finished floor (AFF)

See Mounting Template & Installation Guide (MT & IG)
1907030001 (Supplied with unit)

Men	1270 mm	(50")
Women	1194 mm	(47")
Children 4-7 years	889 mm	(35")
Children 8-10 years	991 mm	(39")
Children 11-13 years	1092 mm	(43")
Children 14-16 years	1194 mm	(47")
Handicaped	1016 mm	(40")

Operation

- **S**hake excess water from hands.
- **P**lace hands under the nozzle and dryer automatically starts operation.
- **R**ub hands lightly and rapidly under the nozzle.
- **D**ryer stops when hands are removed from sensor zone or if maximum time is reached.
- **S**ensor Adjustment Control.
  - ↻ Clockwise: Lengthen the sensing range(+)
  - ↺ Counterclockwise：Shorten the sensing range(-)
  - **DO NOT OVERTURN!**

Cleaning and Maintenance

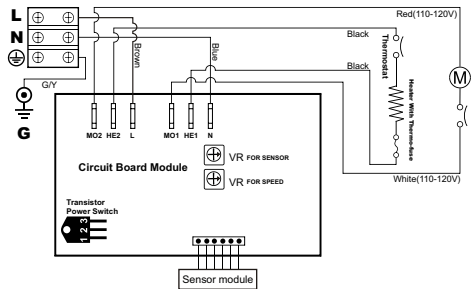**Periodic cleaning of the unit is recommended to ensure optimum performance.**

- Disconnect the electrical supply.
- Remove the two cover-mounting screws.
- Remove the cover.
- Clean all dust lint from the interior of the dryer.
- Wipe the cover with a damp cloth and mild cleaning solution. Do not Soak. Never use abrasives to clean the cover.
- Replace the cover. Do not over tighten the screws.

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Circuit Diagram

**Supply:220-240VAC, 50/60Hz**

Warm air speed adjustment

1. Switch off the power, loosen the cover screws and remove the cover.
2. Use small Philips head screwdriver or plastic flat blade probe to turn VR shaft. Clock-wise [CW] to increase power to maximum (+) ⟳, turn tool gently [CCW] to reduce power as required(-) ⟲.

VR.FOR AIR SPEED
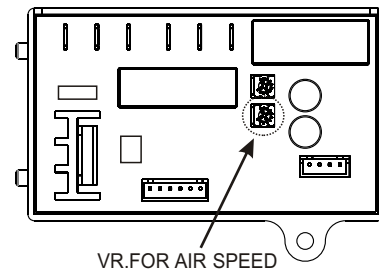
Sensor range adjustment

VR.FOR SENSOR

1. The range is 4" to 9" [100 mm to 230 mm], standard setting is 7" [170 mm ± 20 mm].
2. Clockwise: Increases the sensing range(+) ⟳ .
3. Counterclockwise：Decreases the sensing range(-) ⟲ .
4. **DO NOT OVERTURN!**
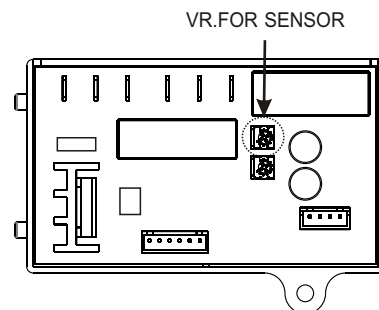
Change filter assembly (Optional)

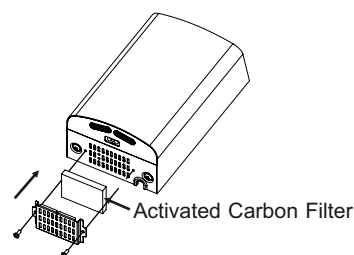**It is recommended to change the filter every six months.**

1. Remove and retain the Filter Holder and the two (2) screws. (Fig.1)
2. Remove and dispose of the old filter appropriately.
3. Place the new filter in the filter holder. (Fig.2)
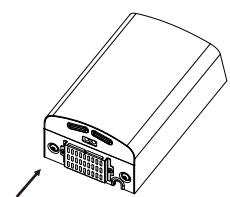4. Fasten the screws with a Phillips screw driver. (Fig.3)

Activated Carbon Filter

Activated Carbon Filter
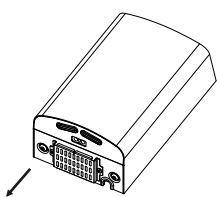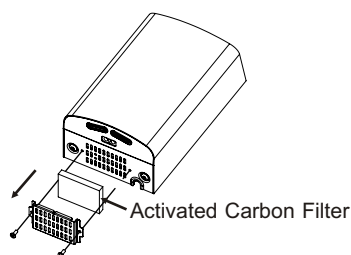
(Fig.1)　　　　(Fig.2)　　　　(Fig.3)　　　　(Fig.4)

4

Diagnostics and Remedies

Symptom	Corrective Actions for Initial Installation Failures
If the dryer will not run	First ensure that the breaker supplying the dryer is operational. If it is, disconnect the power and remove the dryer cover. Taking suitable precautions to avoid shock hazard, reconnect the power and check for Voltage at the terminal block. Verify that connections are made correctly.
The dryer cycles by itself or runs constantly	Ensure that there is no obstruction on or in front of the IR sensor. Clean any dirt or debris off the sensor lens. If problem persists, replace sensor.
The dryer makes a loud noise and does not run for a complete cycle	Ensure that the supply Voltage is correct. Dryer will make a loud humming noise if the input Voltage is too high. Verify Voltage requirement on unit rating label and correct supply as required. If CBM has been damaged, replace CBM, IR sensor module.
The dryer runs but air stream is low pressure and/or low velocity	Ensure that the supply Voltage is correct. Dryer will run weakly if the input Voltage is too low. Verify Voltage requirement on unit rating label and correct supply as required.

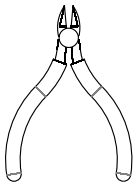| Symptom	Corrective Actions for In-Service Failures
If the dryer will not run	First ensure that the breaker supplying the dryer is operational. If it is, disconnect the power and remove the dryer cover. Replace the CBM and IR sensor module or use a multimeter to test the current on the heating element. If there was no current, please change the heating element. If current was detected, change the motor or check the motor brushes and replace them if the remaining graphite is ⩽ 25/64" [10mm]. Taking suitable precautions to avoid shock hazard, reconnect the power and check for Voltage at the terminal block.
The IR sensor only "sees" close range objects	Ensure that there is no obstruction on or in front of the IR sensor. Clean any dirt or debris off the sensor lens. Check VR for sensor range setting. If problem persists, disconnect the power and remove the dryer cover and replace CBM, IR sensor module.
The 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 buildup from intake vent slots. Check VR for speed setting. Disassemble the blower-motor/fan housing. Check the motor brushes for worn condition (⩽ 25/64" [10 mm] graphite remains) and replace them, if necessary.

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Repair parts list

Key	Part #	Description	Qty	Key	Part #	Description	Qty
1		Cover	1	21	A0259	Sensor module	1
	A0443	Stainless steel -		22	A0381	Sensor bracket	1
		Powder coating white ASI-JD		23	A0268	Caution Branch Circuit label	1
	A0444	Stainless steel - Satin				8A - 240Vac	
	A0445	Stainless steel -		24	A0011	Grounding screw with cup washer	1
		Powder coating black ASI-JD		25	A0450	Base plate	1
2	A0449	Label, Circuit Diagram	1	26	-	Self threading screw 1/4"x1-1/2",	4
3		Rating label	1			philips pan head	
	A0446	0194-2		27	A0029	Nylon bushing	4
	A0447	0194-2-93		28	A0028	Metal washer	4
	A0448	0194-2-41		29	A0001	Rubber grommet -Base	4
4	A0176	Cable protector	1	30	A0124	Security hex wrench	1
5	A0383	CAUTION label	1	31	-	Self threading screw M4x10,	8
6	A0099	Security hex cap head 1/4"-20	2			philips pan head	
		x 5/8" screw with lock washer		32	-	Screw M4x10,philips pan head	1
7	A0377	Blower housing - Upper	1			with external tooth lock washer	
8	A0251	Motor rubber - Upper	1	33	-	Screw M3x16,philips pan head	2
9	A0390	Motor 500W@120Vac	1	34	-	Screw M3x8,philips pan head	2
10	A0246	Motor brushes	1	35	-	Screw M5x10,philips pan head	2
11	A0168	Motor rubber - Lower	1	36	A0335	Power cord (No shown)	1
12	A0378	Blower housing - Lower	1	37	A0505	Activated Carbon Filter	1
13		Heater assembly	1	38	A0506	Stainless steel Filter Holder	1
	A0249	500W@120Vac,28.8Ω		39	-	Screw M4x8,philips pan head	2
14	A0379	Air Outlet	1				
15	A0380	Blower mounting bracket	1				
16	A0112	Mylar shield with LNG marked	1				
17	A0183	Nylon cable clamp	1				
18	A0010	Terminal block	1				
19	A0320	Terminal label	1				
20		Circuit Board Module (CBM)	1				
	A0430	208-240Vac					

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Assembly Diagram

Tools Req'd (Not provided)

Tools Req'd (Provided in kit)

Wire cutter

3/64" THK(1.1)
1/8" DIA(Ø3)
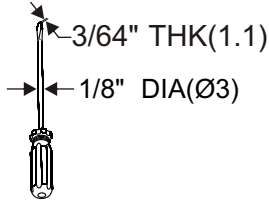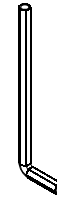
Flat blade
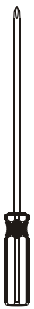
Philips #1/ #2

Security hex wrench
Item 30

Optional

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