



AMERICAN SPECIALTIES, INC.

441 Saw Mill River Road, Yonkers, NY 10701 (914) 476-9000

Hand Dryer

Operating Instructions and Parts Manual

Surface-mounted High-Speed hand dryer

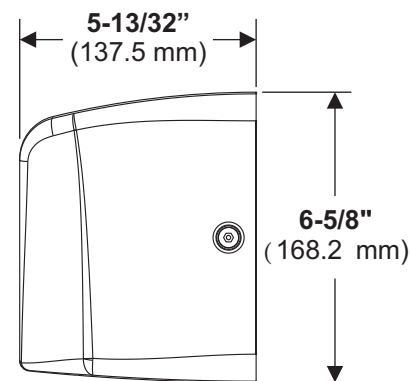
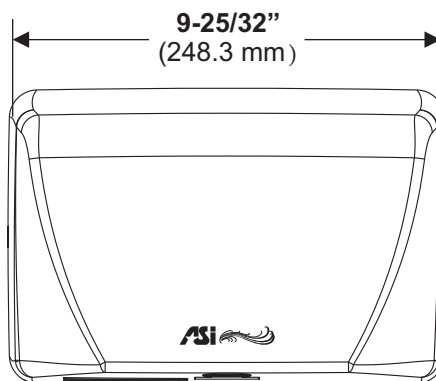
PLEASE CAREFULLY READ THROUGH THIS MANUAL BEFORE USING THE PRODUCT. OBSERVING ALL SAFETY INFORMATION, WARNINGS AND CAUTIONS WILL PROTECT YOURSELF AND OTHERS. PLEASE KEEP INSTRUCTIONS FOR FUTURE REFERENCE.



MODEL # 0198-1

MODEL # 0198-2

Patent Pending



TECHNICAL SPECIFICATIONS

ITEM CATEGORY	PERFORMANCE DATA
Operating Voltage, 0198-1	110-120 VAC, 50/60 Hz, 0.84-1.0kW
Operating Voltage, 0198-2	220-240 VAC, 50/60 Hz, 0.84-1.0kW
Output Warm Air Volume	60 CFM {102 m ³ /h}
Output Warm Air Temp	131°F {55°C} at ambient T = 77°F {25°C}
Output Air Speed	201 mph (295 ft/s) [90 m/s {324 km/h}]
Sound Pressure	66 dB-A @ 2m
Motor Type	0.67 HP, 29 krpm, Brush Type, Dual Ball Bearings
Motor Thermal Protection	120 VAC, Auto Resetting Thermostat turns unit off at 275°F {135°C}
	240 VAC, Auto Resetting Thermostat turns unit off at 203°F {95°C}
Heater Element	500W Nichrome wire with auto reset circuit breaker (thermostat)
Heater Thermal Protection	Auto Resetting Thermostat turns unit off at 185°F {85°C}, Resets at 167°F {75°C}
Drying Time	Less than 15 seconds
Circuit Operation	Infrared Automatic, self adjusting
Sensor Range	5-1/8" to 10" {130 mm to 254 mm}, Adjustable; Standard 7" {178 ± 20 mm}
Timing Protection	60 seconds auto shut off
Timing Duration	2 seconds delayed turn off after last sensor read
Cover Type	18 gauge {.047", 1.2 mm} thick drawn steel or 304 series stainless steel
Cover Finish	White epoxy on steel or Bright or Satin on stainless steel
Net Weight	8.4 lbs {3.8 kg}
Shipping Weight	9.2 lbs {4.2 kg}
Unit Size	9-25/32" W x 6-5/8" H x 5-13/32" D {248.3 mm x 168.2 mm x 137.5 mm}

Input	Model	Motor			Heater		Total	
VAC	Nº	Vac	Inrush A(W)	Operating A (W)	Vac	Inrush / Operating A(W)	Inrush A(W)	Operating A(W)
115	0198-1	115	5.99 (689)	3.99 (459)	115	3.99 (459)	9.98 (1148)	7.89 (918)
120	0198-1	120	6.25 (750)	4.17 (500)	120	4.17 (500)	10.42 (1250)	8.33 (1000)
220	0198-2	220	2.86 (630)	1.91 (420)	220	1.91 (420)	4.68 (1050)	3.82 (840)
230	0198-2	230	2.99 (689)	2.00 (459)	230	2.00 (459)	4.99 (1148)	3.99 (918)
240	0198-2	240	3.13 (750)	2.08 (500)	240	2.08 (500)	5.21 (1250)	4.17 (1000)

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.*

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

Installation

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

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 -**
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.

Installation Kit Included (find in carton)

1. Self-Threading screws Ø1/4" x 1-3/4" (M6 x 44) x 4 pcs
2. Plastic expansion anchor Ø5/16" x 1-3/8" (Ø8 x 35) x 4 pcs

Service Tool Included (with installation kit)

Security hex driver 4 mm x 1 pcs (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 TEMPLATE 1001211546

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

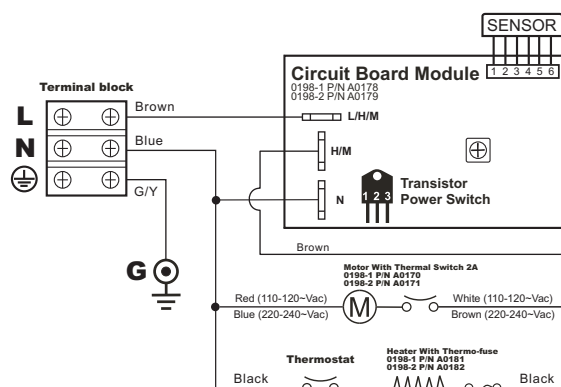
Reference **ADAAG** AFF (maximum)
Reach LIMIT (unrestricted)

All Approaches 48" (1219 mm)

Operation

- Shake excess water from hands.
- Place hands under the nozzle and dryer automatically starts operation.
- Rub hands lightly and rapidly under the nozzle.
- Dryer stops when hands are removed from sensor zone or if maximum time is reached.

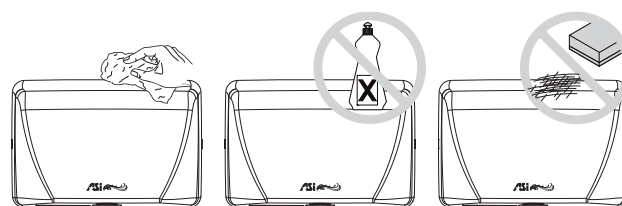
Circuit Diagram



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.



Patent Pending

Warranty

All of our dryers are designed and manufactured to provide years of dependable performance. Component parts are guaranteed to be free of defects in material and workmanship for a period of **Three** years. This guarantee will be honored provided that the dryer is installed and maintained in accordance with the instructions. Parts damaged during the Installation are the purchaser's responsibility. **ASI's** warranty covers defects exclusively, and only liability for the replacement of defective parts will be accepted. This warranty does not cover wear and tear, or misuse and abuse. Transportation, freight costs and labor are also excluded. Defective parts must be returned prepaid, accompanied by the unit serial number, to the point of purchase. This warranty is granted solely to the original purchaser of the unit and is subject to registration.



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 and VR component and cable.
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. 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. If problem persists, disconnect the power and remove the dryer cover. Taking suitable precautions to avoid shock hazard, reconnect the power and try carefully adjusting the sensitivity control (yellow shaft in blue box on CBM) to increase the sensing range. If problem persists, replace sensor.
The heater gets hot but no air stream is produced	Disconnect the power. Remove the dryer cover and disassemble the blower-motor/fan housing. Replace the fan motor.
The dryer only blows cold air during a full cycle	Disconnect the power. Remove the dryer cover and disassemble the blower-motor/fan housing. Test the thermostat for open circuit. Check the heater element for signs of burning or breakage. Damaged element must be replaced.
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. Disassemble the blower-motor/fan housing. Check the motor brushes for worn condition ($\leq 1\text{-}3/16"$ [30 mm] graphite remains) and replace them, if necessary.



Repair parts list

Key	Part #	Description	Qty	Key	Part #	Description	Qty
1	A0166	Blower housing - Upper	1	21	A0011	Grounding screw with cup	1
2	A0168	Motor rubber - Upper	1	22	-	Screw M5x50,philips pan head	1
3		Motor	1	23	-	Self threading screw M4x10, philips pan head	6
	A0170	0.67HP@120Vac					
	A0171	0.67HP@240Vac		24	-	Screw M4x18,philips pan head	1
4	A0169	Motor rubber - Lower	1	25	-	Screw M5x8,philips pan head with external tooth lock washer	4
5	A0167	Blower housing - Lower	1	26	-	Screw M5x10,philips pan head	3
6	A0172	Blower mounting bracket	1	27	-	Screw M3x8,philips pan head	2
7		Cover	1	28	-	Screw M4x5,philips pan head with external tooth lock washer	1
	A0173	Steel - Epoxy enamel					
	A0174	Stainless steel - Bright		29	-	Screw M4x10,philips pan head with external tooth lock washer	1
	A0175	Stainless steel - Satin					
8	A0099	Security hex cap head 1/4"-20 x5/8" screw with lock washer	1	30	-	Screw M3x16,philips pan head	2
9	A0068	Caution Discon PWR label	1	31		Timer terminal legend	1
10	A0176	Cable protector	1	32		Label, Circuit Diagram	1
11	A0177	Sensor bracket	1	33		Wires Harness (Not Shown)	1
12		Sensor module (part of CBM)	1				
13		Circuit Board Module (CBM)	1				
	A0178	110-120Vac					
	A0179	220-240Vac					
14	A0029	Nylon hole busing	1				
15	A0180	Base plate	1				
16		Heater assembly	1				
	A0181	500W@120Vac,28.8Ω					
	A0182	500W@240Vac,115.2Ω					
17	A0133	Mylar shield with LNG marked	1				
18	A0010	Terminal block	1				
19		CAUTION label	1				
20	A0183	Nylon cable clamp	1				

Assembly Diagram

