

Tumble Dryer

AD-35i / AD-50i / AD-80i

EN – Installation/Operator Manual

GB, IE



To avoid errors and damage to the dryer,
please read these instructions carefully
before attempting to install or operate



American Dryer Corporation

88 Currant Road

Fall River MA 02720-4781 USA

Telephone: +1 (508) 678-9000 / Fax: +1 (508) 678-9447

e-mail: techsupport@amdry.com

www.adclaundry.com

ADC Part No. 113576-1



Safety Precautions

Only qualified personnel should install, service, or adjust this equipment.

The information in this manual must be followed to minimize the risk of fire or explosion and to prevent property damage, personal injury, or loss of life.

Do not allow children to play on or in the dryer.

Children must be supervised when near an operating dryer.

The appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory and mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of appliance in a safe way and understand the hazards involved.

Do not modify this appliance.

Do not bypass or disable any door or drawer switch.

Do not bypass or disable any heat safety circuit.

Do not operate with any guards or service panels removed.

Do not operate if the lint filter is not in place.

Do not use dryer in the presence of dry cleaning fumes.

Do not spray aerosols near the dryer while it is operating.

Dry only water washed fabrics. Do not dry articles spotted or washed in dry cleaning solvents, combustible detergents, industrial chemicals, or "all-purpose" cleaner.

Do not dry rags or articles coated or contaminated with gasoline, kerosene, oil, paint, or wax.

Items that have been spotted or soaked with vegetable or cooking oil constitute a fire hazard and should not be dried.

Do not dry mop heads. Contaminations from wax or flammable solvents are a fire hazard.

Do not store or use gasoline or other flammable liquids or vapors in the vicinity of this appliance.

A qualified technician must be called if any high-limit thermostat trips to investigate, and resolve, the issue.

Disconnect power before resetting any safety device.

Do not use heat for drying articles that contain plastic, foam, sponge rubber, or similarly textured rubber materials.

Lint buildup in the burner area, exhaust duct, and around the machine is a fire hazard and must be cleaned frequently.

You must disconnect and lockout the electric supply and the gas supply, before removing any guards.

Label all wires prior to disconnection when servicing the dryer.

Every drying cycle finishes with a cool-down period to remove heat from the dry load. Never stop the dryer before the end of the drying cycle unless the load is quickly removed and spread out to allow the heat to dissipate quickly.

Fabric softeners or similar products should only be used as recommended by the fabric softener manufacturer.

Exhaust duct outlet should be checked periodically for blockages, and if any found, removed.

Use this dryer only for its intended purpose, drying fabrics.

Purchaser and user should consult the local gas supplier for proper instructions to be followed in the event the user smells gas. The instructions should be posted in a prominent location.

What To Do If You Smell Gas:

- Do not try to operate any appliance.
- Do not touch any electrical switch.
- Do not use any phone in your building.
- Clear the room, building, and area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Table of Contents

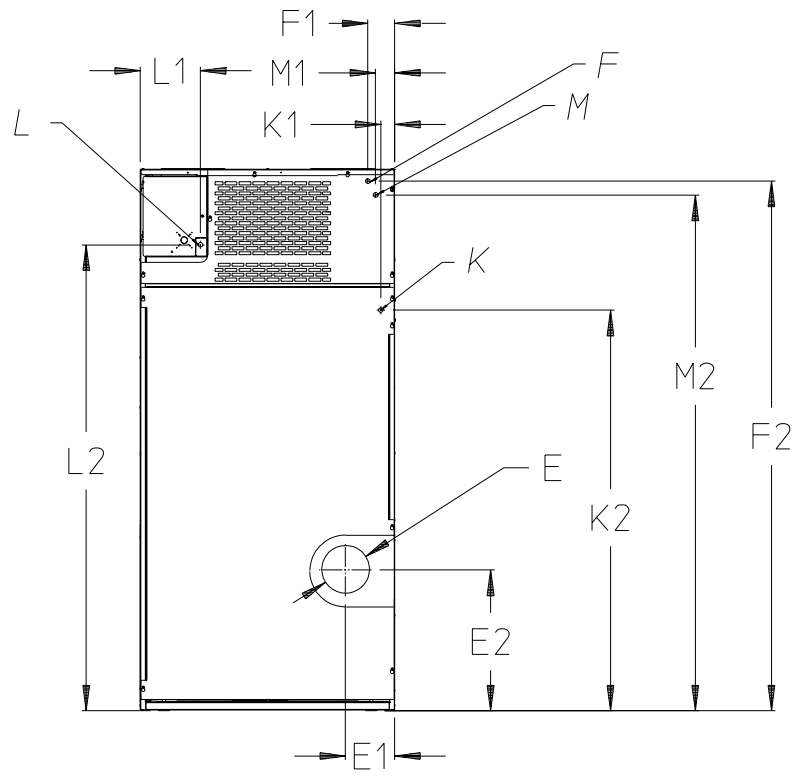
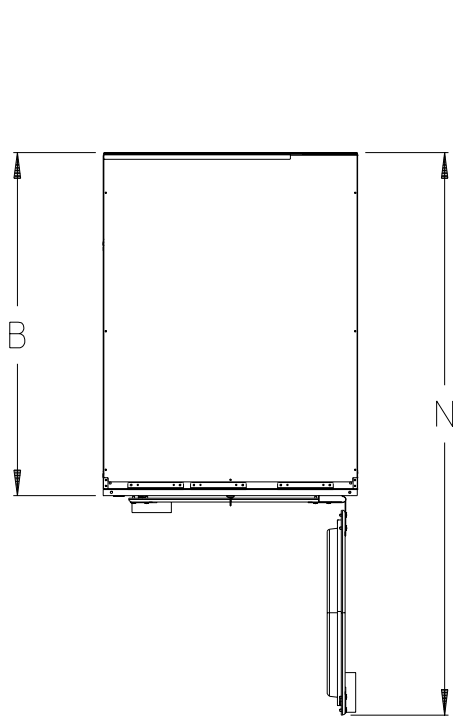
SAFETY PRECAUTIONS	2
TECHNICAL SPECIFICATIONS	4
INSTALLATION PROCEDURES	6
LOCATION REQUIREMENTS	6
UNPACKING / SETTING UP	6
DRYER ENCLOSURE REQUIREMENTS	6
FRESH (MAKE-UP) AIR SUPPLY REQUIREMENTS	6
EXHAUST REQUIREMENTS	6
ELECTRICAL INFORMATION (50HZ)	8
GAS INFORMATION	10
GAS TYPE CONVERSION	11
STEAM INFORMATION	12
WATER INFORMATION	14
PREOPERATIONAL TEST	14
OPERATING INSTRUCTIONS	14
ROUTINE MAINTENANCE	15
SERVICE / PARTS INFORMATION	15
DATA LABEL INFORMATION	15
NON-COIN PROGRAMMING	16
COIN PROGRAMMING	17
WARRANTY INFORMATION	18

This Page Is
Intentionally Left Blank

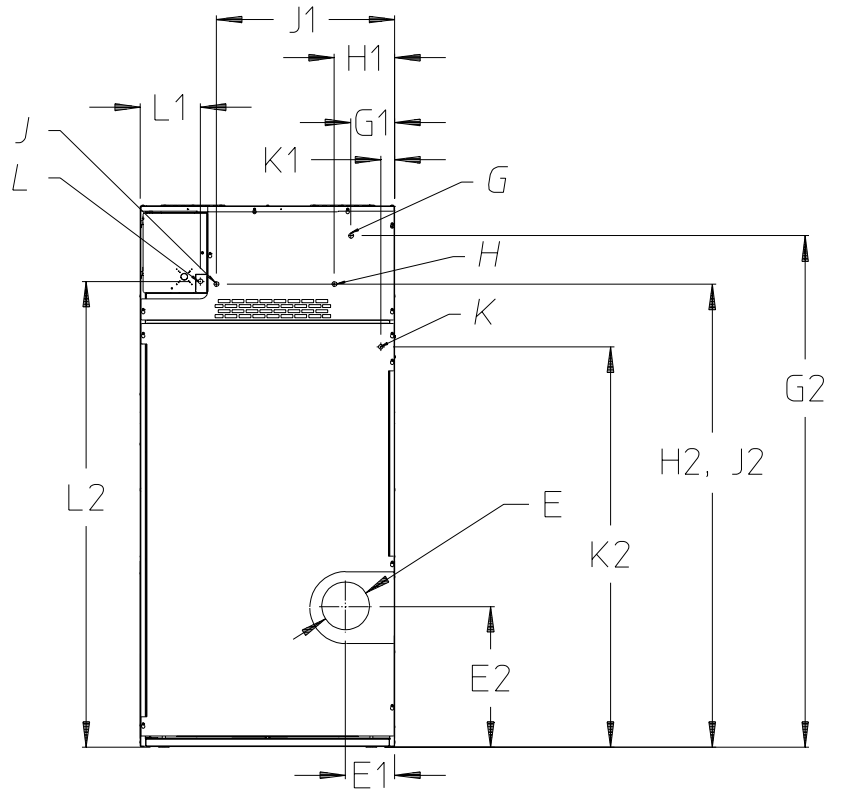
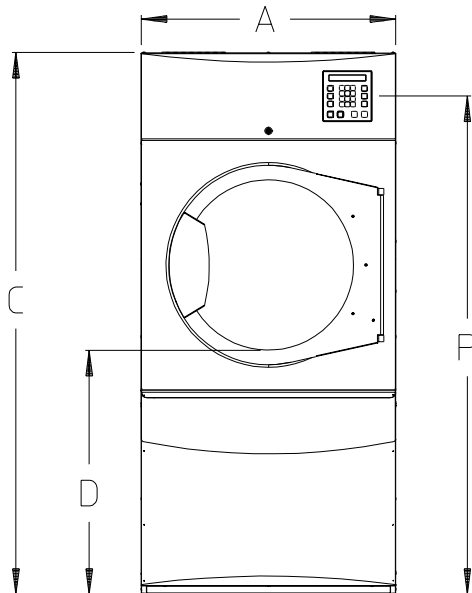
Technical Specifications		AD-35i	AD-50i	AD-80i
Maximum Capacity (Dry Weight)	kg	15.9	22.7	36.3
Tumbler Volume	liters	340	518	624
Tumbler (Diameter x Depth)	cm	76.2 x 74.6	83.2 x 95.3	94.0 x 90.0
Door Opening (Diameter)	cm	54.6	68.6	79.7
Airflow (50Hz)	cmm	9.6	22.9	24.9
Heat Rate (Gas)	kW	20.5	36.6	39.6
Heat Rate (Steam) – Normal Load	Bhp	–	2.7	3.6
Steam Consumption	kg/hr	–	47.6	63.5
Electric Oven Size	kW	6.7 - 13.5	18.5 / 20.4 / 22.0	18.5 / 20.4 / 22.0
Airborne Sound Level	dB(A)	63	64	64
Tumbler (Drive) Motor	kW	0.75	0.75	0.75
Blower (Fan) Motor	kW	0.37	0.56	0.56
Net Weight (Approximate)	kg	250	300	318
Shipping Weight (Approximate)	kg	265	330	327
Cabinet Width (A)	cm	81.0	87.6	99.1
Cabinet Depth (B)	cm	109.2	125.4	133.0
Cabinet Height (C)	cm	172.4	187.1	197.8
Door Sill Height (D)	cm	77.6	74.0	73.7
Exhaust Connection (Diameter) (E)	cm	15.2 / 20.3	20.3	20.3
Gas Connection (F)	ISO 7/1	Rc 1/2	Rc 1/2	Rc 1/2
Steam Supply Connection (G)	FNPT	–	3/4	3/4
Steam Return Connection -1 (H)	FNPT	–	3/4	3/4
Steam Return Connection -2 (J)	FNPT	–	–	3/4
Water Connection (K)	ISO 7/1	R 3/4	R 3/4	R 3/4
Electric Connection (Gas / Steam Heat) (L)				
Electric Connection (Electric Heat) (M)				

		E1	E2	F1	F2	G1	G2	H1	H2	J1
35i	cm	16	45	9	169	-	-	-	-	-
50i	cm	14	47	12	179	25	177	25	158	-
80i	cm	17	43	6	179	21	188	28	169	71
		J2	K1	K2	L1	L2	M1	M2	N	P
35i	cm	-	4	128	19	148	9	169	179	159
50i	cm	-	4	146	19	157	9	176	208	167
80i	cm	169	4	158	19	167	9	187	229	178

NOTE: The manufacturer reserves the right to make changes in specifications at any time, without notice or obligation.



MAN8163



Installation Procedures

Location Requirements

The temperature of the installation location must remain between 4° C and 55° C.

The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

The dryer should be located where a minimum amount of exhaust ducting will be necessary.

The dryer must be installed on a sound level floor capable of supporting its weight. Any carpeting must be removed.

Install a lockable door to prevent the public from accessing the rear of the dryer.

The appliance must not be installed behind a lockable door, a sliding door or a door with a hinge on the opposite side to that of the tumble dryer, in such a way that a full opening of the tumble dryer door is restricted.

Unpacking / Setting Up

Dryer must be handled in an upright position at all times.

Remove protective shipping material (i.e. plastic wrap and optional shipping box) from the dryer.

Remove the pallet. Remove the 2 bolts securing the base of the dryer to the pallet. One bolt is located at the center rear of the dryer and the other is at the center front (accessed by opening the lint door).

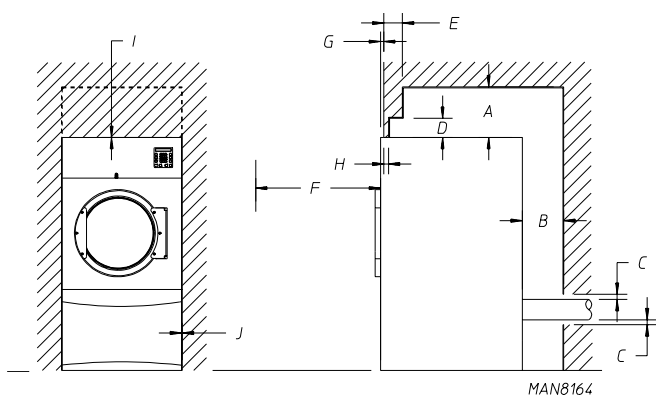
If the dryer is to be slid into its final position, ensure that all four leveling legs (one in each corner) are fully retracted.

Once the dryer is in position, adjust the leveling legs so it is level front-to-back and side-to-side.

Reversing the Main Loading Door

If required, the front panel can be reversed so that the door hinges are positioned on the opposite side. Please contact our service department for detailed instructions.

Dryer Enclosure Requirements



Clearance to combustible material

- A Minimum 30 cm (46 cm recommended)
- B Minimum 30 cm (61 cm recommended)
- C Minimum 5 cm
- D Minimum 10 cm
- E Maximum 10 cm

Clearance to nearest obstacle

- F Open door:
 - AD-35i: 84 cm, AD-50i: 91 cm, AD-80i: 102 cm
- G 2.5 cm (To allow control door to open)
- H 2.5 cm
- I 1.5 mm
- J 1.5 mm



Fresh (Make-Up) Air Supply Requirements

The dryer draws in air, heats it, passes it through the tumbler, and exhausts it outside.

Adequate ventilation has to be provided to avoid the back flow of gases into the room from appliances burning fuels, including open fires.

Insufficient fresh air supply could diminish dryer performance.

Make-up air must be free of dry cleaning solvent fumes.

Locate fresh air openings away from exhaust vent discharge.

Locate the openings behind the dryer to avoid room drafts.

An unrestricted opening to the outdoors of 451 cm² for each AD-35i, 805 cm² for each AD-50i, and 871 cm² for each AD-80i is required (Based on 22 cm² per kW).

Separate make-up air openings are not required. Common openings, located evenly between the dryers, are acceptable.

The size of the make-up air opening must be increased by 33% to compensate for the use of registers or louvers.

Exhaust Requirements

Single (independent) dryer venting is recommended.

Dryers must be exhausted to the outdoors.

The dryer shall not be exhausted into any gas vent, chimney, wall, ceiling, or concealed space of a building.

Exhaust ductwork should be designed and installed by a qualified professional. Improperly sized ducting will result in slow drying and possible dryer malfunction.

Exhaust back pressure should be a minimum of 0 mb and a maximum of 1.5 mb.

The design of the flue system shall be such that any condensate formed when operating the appliance from cold shall either be retained and subsequently re-evaporated or discharged.

Use metal ducting or other noncombustible material.

Avoid 90° turns; use gentle (30° or 45°) bends instead.

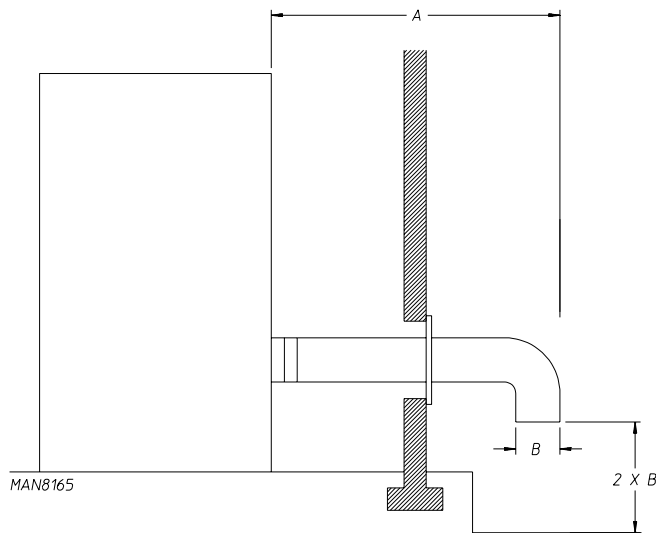
Elbow radius should be at least 1.5 times the duct diameter.

Avoid using screws or other fasteners that project into the exhaust airflow and collect lint.

There must be 5 cm of clearance if the duct passes through any wall, ceiling, or roof made of combustible materials.

Protect the end of the exhaust duct from the weather outside.

Single Dryer Venting (50Hz)



	AD-35i		AD-50i	AD-80i
A (m)	15	80	12	10
B (mm)	152	203	203	203

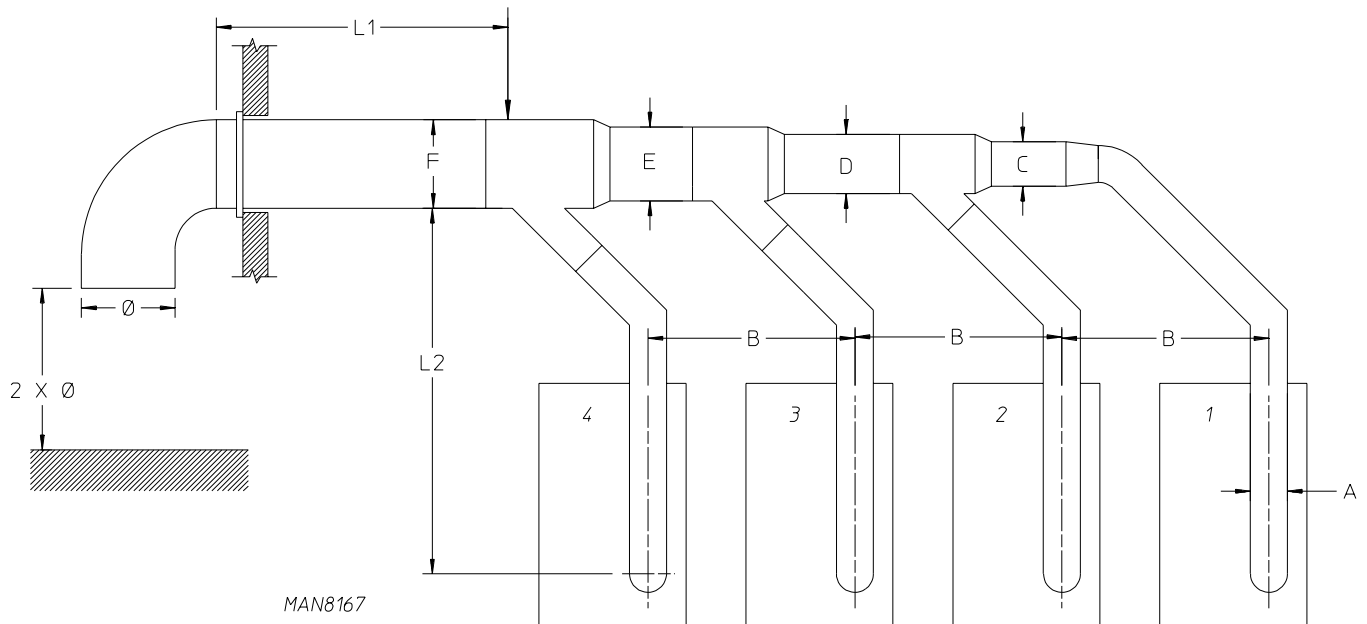
Multiple Dryer (Common) Venting (50Hz)

If separate exhaust ducts are not possible then ducts from multiple dryers may be channeled into a "common main duct."

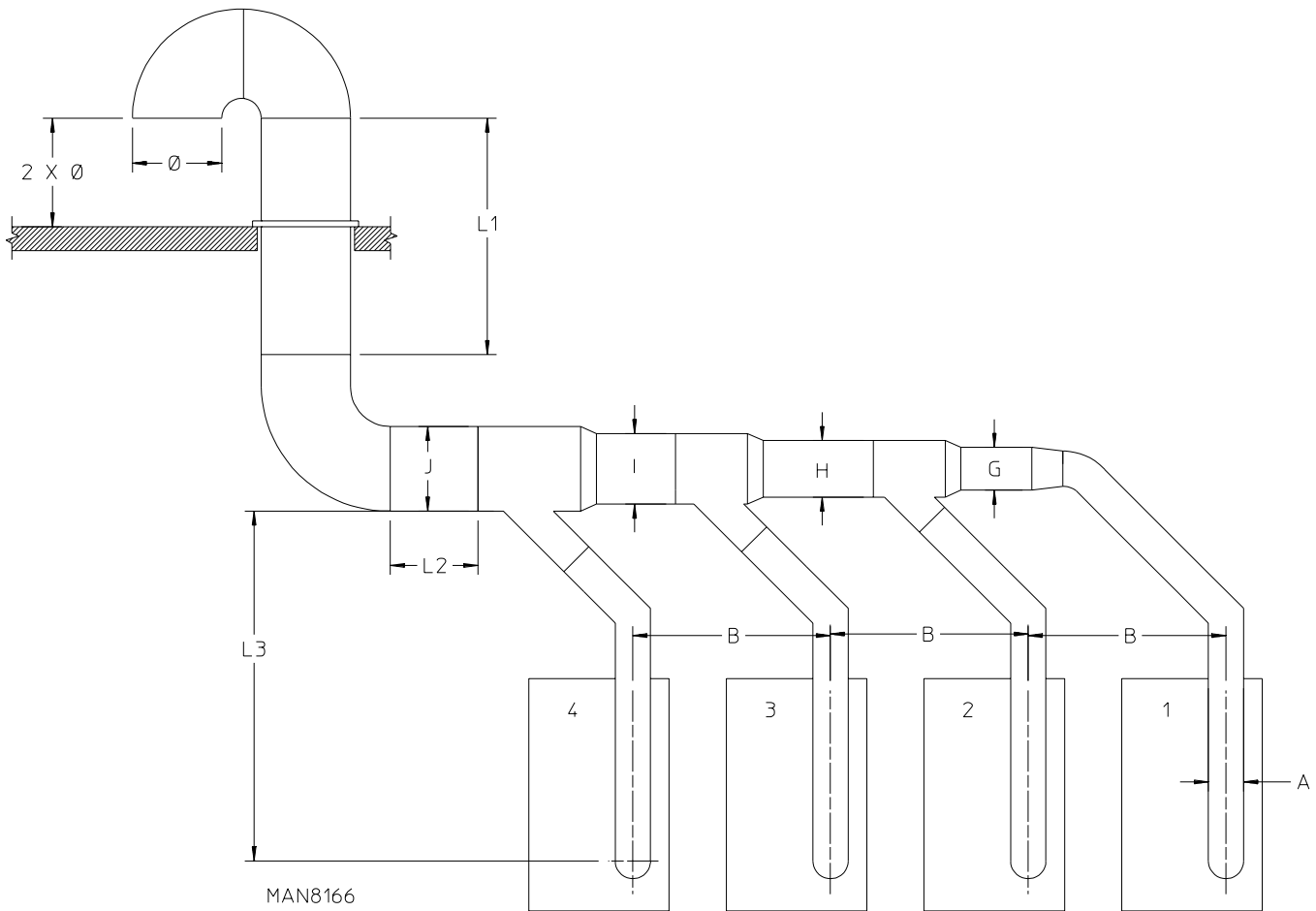
Multiple Dryer Venting			
	AD-35i	AD-50i	AD-80i
A (mm)	152	203	203
B (mm)	810	876	991
Multiple Dryer Venting - Through an End Wall			
C (mm)	203	254	254
D (mm)	254	356	356
E (mm)	305	406	406
F (mm)	356	457	457
L1+L2 (m)	50	30	25
Multiple Dryer Venting - Through Roof or Rear Wall			
G (mm)	203	254	254
H (mm)	254	356	356
I (mm)	305	406	406
J (mm)	356	457	457
A1+A2+A3 (m)	35	12	10

No more than four dryers should be commonly vented.

The individual ducts should enter the bottom or side of the main duct at an angle of not more than 45° in the direction of airflow. The main duct diameter should increase before each individual duct is added.



Multiple Dryer Venting – Through End Wall (3x 90° Turns)



Multiple Dryer Venting – Through Roof or Rear Wall (5x 90° Turns)



Electrical Information (50Hz)

Electric installation must be performed by qualified personnel in accordance with national and local safety regulations.

The dryer must be electrically earthed (grounded) in accordance with national and local codes.

Individual earth circuit must be provided to each dryer.

Failure to properly earth the dryer will void the warranty.

An external means of power removal (disconnect device) must be provided.

Each dryer should be connected to a properly sized, and independently protected, branch circuit.

The electric supply must match exactly what is specified on the dryer's rating plate (data badge).

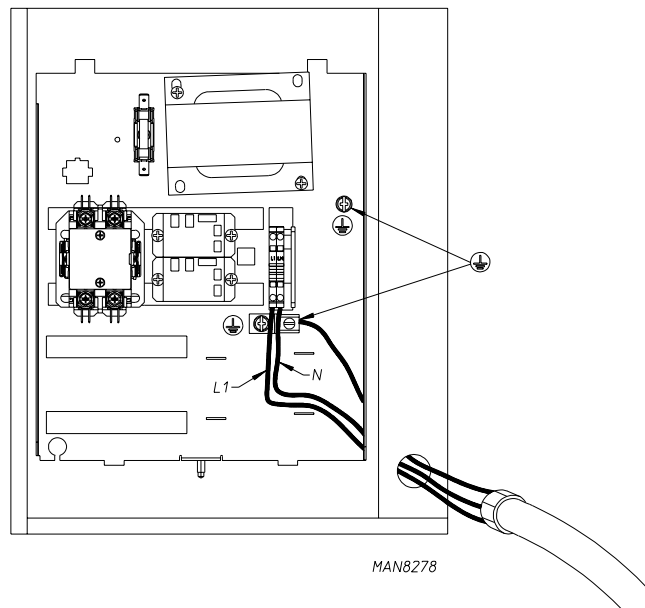
Electrical Connections

The electrical input connections are made into the rear of the dryer (refer to the Technical Specifications page).

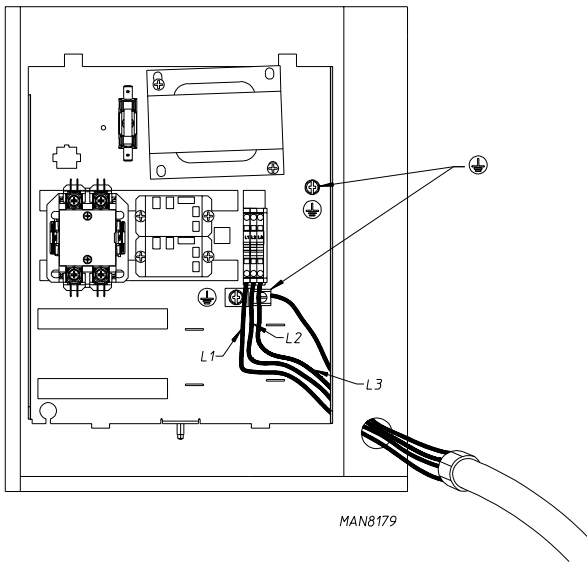
A strain relief must be used where wires enter the dryer.

Gas and Steam Heated Dryers

Single-Phase Connection

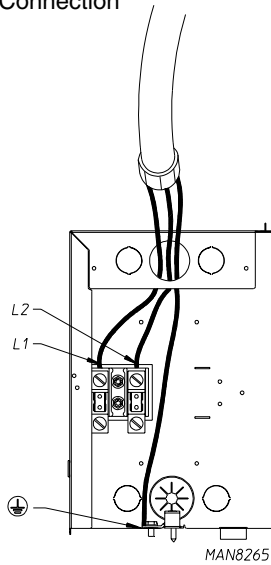


Three-Phase Connection

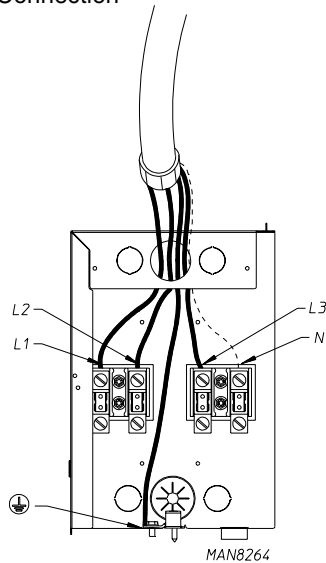


Electric Heated Dryers

Single-Phase Connection



Three-Phase Connection



Electrical Specifications (50Hz) – Gas and Steam Models

	AD-35i —	AD-50i —	AD-80i —
220-240V 1~	10	10	10
220-240V 3~	6	6	6
380-416V 3~	6	6	6

Electrical Specifications (50Hz) – Electric Models

AD-35i	Oven (kW)	Amps	—
220V 1~	11.3	58.0	80
230V 1~	12.4	60.5	80
240V 1~	13.5	62.9	80
220V 3~	11.3	34.3	50
230V 3~	12.4	35.7	50
240V 3~	13.5	37.1	50
380V 3~	11.3	21	32
400V 3~	12.4	21	32
416V 3~	13.5	22	32

AD-50i, AD-80i	Oven (kW)	Amps	—
220V 1~	18.5	89.0	125
230V 1~	20.4	93.6	125
240V 1~	22.0	96.6	125
220V 3~	18.5	53.4	80
230V 3~	20.4	56.1	80
240V 3~	22.0	57.8	80
380V 3~	18.5	34.7	50
400V 3~	20.4	36.1	50
416V 3~	22.0	37.2	50

NOTES _____



Gas Information

Gas installation should be performed by qualified personnel in accordance with national and local safety regulations.

Before installation, check that the local distribution conditions, nature of gas and pressure, and the adjustment of the appliances are compatible.

This appliance must only be installed in the country that is indicated on the rating plate (data badge). If the appliance is to be installed in a country other than the one indicated, a new rating plate must be obtained from the manufacturer.

Refer to the Technical Specifications section for minimum gas supply pipe size (do not reduce). Piping should conform to local and national requirements. In AU/NZ, refer to AS/NZS 5601.1 for guidance on gas supply pipe size for this appliance installation.

If the gas connection is made with a flexible hose, it must be suitable for the appliance category in accordance with national safety regulations of the country of destination.

Mount a shutoff valve upstream from the dryer.

Test all connections for leaks.

The burner will attempt to light for a maximum of 8 seconds (2 retries).

The dryer must be restrained to prevent straining the gas supply connection (fastening holes are provided in the top of the dryer for this purpose). The length and design of the restraint should be suitable to prevent strain on the gas line if the dryer is moved. If the dryer is to be moved then the following steps must be taken:

- Disconnect electrical power to the dryer.
- Close all external gas supply shutoff valves.
- Disconnect the gas supply line.
- Remove the restraint from the dryer.

CE Approved Gas Types	
2nd Family	
I_{2H} (20)	AT, BG, CH, CZ, DK, EE, ES, FI, GB, GR, HR, IE, IT, LT, LV, NO, PT, RO, SE, SI, SK, TR
I_{2E} (20)	DE, LU, PL
I_{2ELL} (20)	DE
I_{2E+} (20/25)	BE, FR
I_{2L} (25)	NL
3rd Family	
I_{3+} (28-30/37)	BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, LU, PT, SI, SK
I_{3P} (37)	BE, CH, CZ, ES, FR, GB, GR, HR, IE, IT, LT, NL, SI, SK, PL, PT
$I_{3B/P}$ (30)	BG, CY, DK, EE, FR, HU, HR, IS, IT, LT, LU, MT, NL, NO, RO, SE, SI, SK, TR
$I_{3B/P}$ (50)	AT, CH, DE, SK
AU / NZ Approved Gas Types	
NG	LP

Gas Specifications										
Gas Characteristics					* ADG-35i		* ADG-50i		* ADG-80i	
					1 Injector		1 Injector		1 Injector	
Gas Type (Category)	Gas Symbol	H_s	Supply Pressure	Burner Pressure	Gas Rate	Injector Size	Gas Rate	Injector Size	Gas Rate	Injector Size
		MJ/m ³	(mbar)	mbar	m ³ /H	mm	m ³ /H	mm	m ³ /H	mm
Natural (I_{2H} / I_{2E})	G20	37.78	17-25	9.0	1.98	3.988	3.40	5.220	3.77	5.613
Natural (I_{2L})	G25	32.49	20-30	12.0	2.39	3.988	4.09	5.220	4.39	5.613
Natural (I_{2ELL})	G25	32.49	20-30	12.0	2.39	3.988	4.09	5.220	4.39	5.613
** Natural (I_{2E+})	G20	37.78	20	–	1.98	3.264	3.40	4.394	3.77	4.623
	G25	32.49	25	–	2.39		4.09		4.39	
** Butane or ** Propane (I_{3+})	G30	125.81	28-30	–	0.62	2.261	1.07	2.946	1.13	3.264
	G31	95.65	37	–	0.79		1.36		1.49	
Mix Butane & Propane ($I_{3B/P}$)	G30	125.81	30/50	20.0	0.62	2.438	1.07	3.264	1.13	3.454
Propane (I_{3P})	G31	95.65	37	25.0	0.79	2.438	1.36	3.264	1.49	3.454

* Consult factory for elevations over 610m for correct burner injector size(s).

** Gas valve's internal regulator is disabled.

AU and NZ Gas Specifications										
Gas Characteristics		* ADG-35i			* ADG-50i			* ADG-80i		
		1 Injector			1 Injector			1 Injector		
Gas Type	Supply Pressure	Burner Pressure	Gas Rate	Injector Size	Burner Pressure	Gas Rate	Injector Size	Burner Pressure	Gas Rate	Injector Size
	kPa	kPa	m ³ /H	mm	kPa	m ³ /H	mm	kPa	m ³ /H	mm
NG	1.7 - 3.2	0.90	1.98	3.988	0.83	3.40	5.220	0.83	3.77	5.613
LPG	2.75	2.67	0.62	2.438	2.50	1.07	3.264	2.50	1.13	3.454

* Consult factory for elevations over 610m for correct burner injector size(s).



Gas Type Conversion

This appliance must only operate with the gas type indicated on the dryer's rating plate. If the appliance is converted for use with a gas type other than the one indicated, a new rating plate must be obtained from the manufacturer.

Burner conversion must be performed by qualified personnel in accordance with national and local safety regulations.

The required conversion kit will depend on the gas type and the country the dryer is installed in.

Parts Required for Conversion:

1. Rating Plate (Data Badge)
2. Injector (refer to Gas Specification Chart)
3. Gas valve conversion kit:

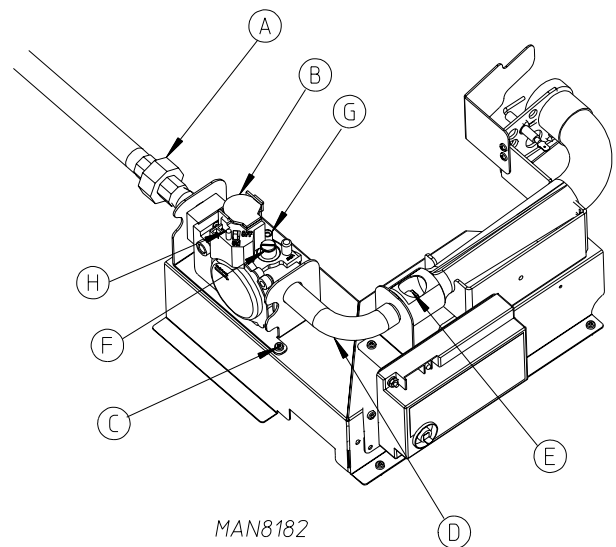
Gas Valve Conversion Kit	
Converting To	Gas Valve Kit
I _{2E+} / I ₃₊	* 140411
I _{3B/P} / I _{3P} LP (AU/NZ)	140413
I _{2H} / I _{2E(LL)} / I _{2L} NG (AU/NZ)	140418

* Disables gas valve's regulator. Adjust the gas supply pressure to the value shown in the Gas Specification Chart.

Conversion Instructions

(Refer to figure)

1. Discontinue electrical power to the dryer.
2. Close shutoff valve in the dryer's gas supply line.
3. Disconnect gas valve wiring (label wires first).
4. Disconnect the union (A) between the external shutoff and the gas valve (B).
5. Remove screws (C) and remove the gas valve (B) with manifold (D) assembly from the dryer.
6. Replace the main burner injector (E) with the correct injector (see Gas Specification Chart).



MAN8182

7. Instructions on how to convert the gas valve is included with the gas valve conversion kit (see chart).
8. Reverse step 4 to install the gas valve (B) with manifold (D) assembly.
9. Open shutoff valve in the dryer's gas supply line.
10. Test all connections for leaks.
11. Connect gas valve wires.
12. Continue electric power.
13. Provide proper gas pressure to the injector (see chart):
Gas supply pressure for categories I_{2E+} and I₃₊ must be regulated in the dryer's gas supply line.
All other gas categories require adjustment of the gas valve's internal regulator; instructions below.
14. Replace the original rating plate with the rating plate.

Burner Pressure Measure and Adjust

(Refer to figure)

1. Discontinue electrical power to the dryer.
2. Turn the gas valve's switch (H) to "OFF" position.

3. Back out the miniature screw inside the outlet pressure tap (“out P”) (G).
4. Attach a manometer to pressure tap (G).
5. Turn the gas valve’s switch (H) to the “ON” position.
6. Continue electrical power to the dryer.
7. Run a “heat” cycle and wait for burner ignition.
8. Gas manifold pressure can now be measured.
9. If the gas pressure does not need adjustment then disconnect electric power and go to Step 10, otherwise:
 - 9.1. Disconnect electrical power to the dryer.
 - 9.2. Regulator screw is under the regulator cap (F)
 - 9.3. Remove the regulator cap (F) and turn the plastic adjustment screw to alter the pressure (clockwise to increase, or counterclockwise to decrease).
 - 9.4. Continue electrical power to the dryer.
 - 9.5. Run a “heat” cycle and wait for burner ignition.
 - 9.6. Gas manifold pressure can now be measured.
 - 9.7. If the manifold pressure needs further adjustment then return to “Step 9.1.”
 - 9.8. Disconnect electrical power to the dryer.
 - 9.9. Replace the regulator cap (F).
10. Turn the gas valve’s switch (H) to “OFF” position
11. Remove manometer and tighten pressure tap screw (G).
12. Turn the gas valve’s switch (H) to “ON” position
13. Continue electrical power to the dryer.



Steam Information

Steam installation should be performed by qualified personnel in accordance with national and local safety regulations.

Care must be taken when leveling a steam dryer to promote good steam coil drainage. Return lines should be level or pitched down slightly for good drainage.

The steam supply to the coil must be from the top of a well-dripped steam main. If the supply run-out to the dryer exceeds 6 meters then it should be dripped just before the control valve with a proper trap and dirt pocket.

The normal pH level for copper-type steam coils must be maintained between 8.5 and 9.5. For steel-type steam coils the pH level must be between 9.5 to 10.5. These limits are required to limit the acid attack of the steam coils.

Properly sized steam supply, and return, lines are required to avoid poor performance.

Clean, dry steam must be provided to the dryer.

The steam supply connection into the main supply line must be made with a minimum 25 cm riser. This will prevent any condensate from draining towards the dryer.

The steam supply line to the dryer must include a 30 cm riser along with a drip trap and check valve. This will prevent any condensate from entering the steam coil.

Flexible hoses or couplings must be used. The dryer vibrates slightly when operating which could cause steam connections to crack if they are hard piped.

Horizontal sections of steam supply piping should be pitched back towards the steam supply header (minimum slope of 1 cm for every meter) to allow any condensation to flow back into the header. Install a bypass trap in any low point to eliminate wet steam.

Failure to comply with the above requirements can result in water hammer, premature component failure, and will void the warranty.

Steam Supply Requirements	
Maximum Pressure	1.0 MPa
Minimum Pressure	0.7 MPa

Shutoff valves for each dryer should be installed in the supply line, return line, and drip trap return line. This will allow the dryer to be isolated from the steam supply if the dryer will be serviced.

The supply and return lines should be insulated to save energy and provide safety to maintenance personnel.

Install a 3/4-inch vacuum breaker at the steam coil (as shown) to prevent coil damage from acids formed in a vacuum.

Mount steam solenoid valve in orientation show (coil up).

A standard steam dryer comes with a 24VAC solenoid valve that is shipped in the dryer’s lint compartment. Electric connections are in the rear of the dryer (top right).

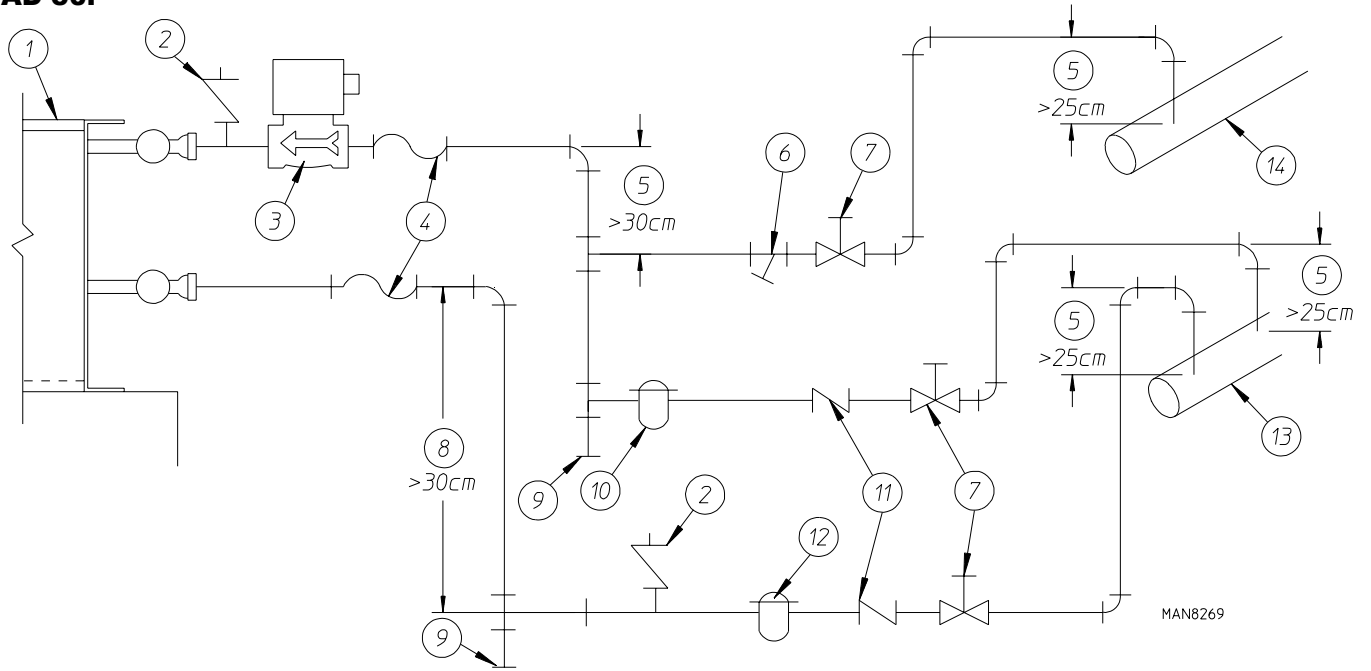
AD-50i

Install an inverted bucket steam trap and check valve at least 30 cm below the steam coil return connection, and as close to the coil as possible. A trap, with a minimum capacity of 95.2 kg of condensate per hour (at 1.0 MPa), is needed for each unit (based on twice the steam consumption per hour). Refer to the schematic later in this section.

AD-80i

Install an inverted bucket steam trap and check valve at least 30 cm below each steam coil return connection, and as close to the coil as possible. Two traps, with a minimum capacity of 63.5 kg of condensate per hour (at 1.0 MPa), are needed for each unit (based on twice the steam consumption per hour). Refer to the schematic later in this section.

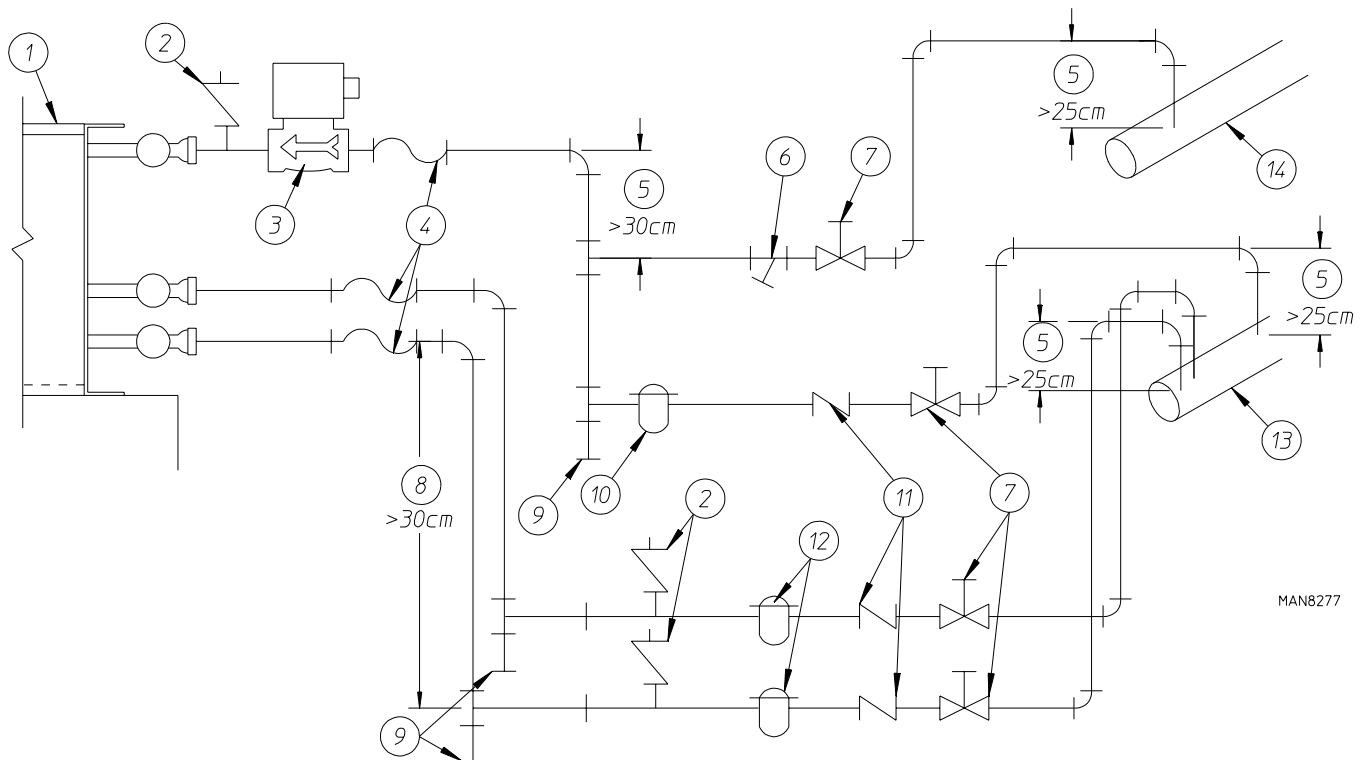
AD-50i



- 1. Steam Coil
- 2. Vacuum Breaker
- 3. Solenoid Valve
- 4. Flexible Hose or Coupling
- 5. Riser
- 6. Strainer
- 7. Manual Shutoff Valve

- 8. Drop
- 9. Dirt Leg
- 10. Drip Trap
- 11. Check Valve
- 12. Inverted Bucket Steam Trap
- 13. Return Main
- 14. Supply Main

AD-80i





Water Information

Water installation should be performed by qualified personnel in accordance with national and local safety regulations.

If the water system activates then you must have the dryer inspected by a qualified agency. Do not operate the dryer.

Electric power to the dryer must be on at all times in order for the fire suppression system (F.S.S.) to function.

Water Connection and Supply

(Refer to figure)

The water connection is made into the rear of the dryer (refer to the Technical Specifications page).

Use a new hose to connect to the water supply.

A flexible supply line, with coupling, must be used to avoid damaging the water solenoid valve (A).

Water supply pipe size should be at least 1/2-inch (nominal) (21.3 mm) and the supply pressure should be 275 ± 137 kPa.

Protect water lines from freezing if they will be exposed to freezing-cold temperatures.

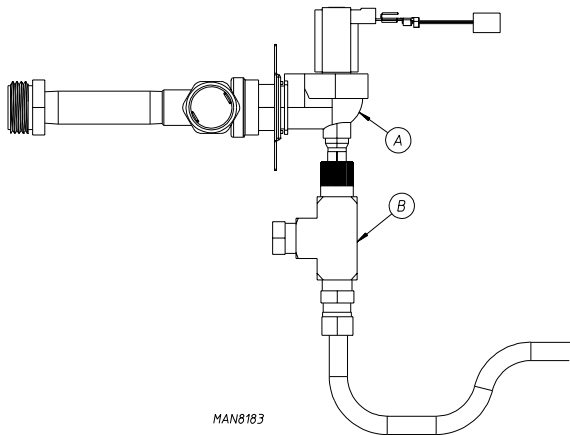


Figure: Factory-provided fire suppression system

Optional Manual Bypass

A manual bypass can be connected to the “tee” fitting (B); see figure. A 3/8” F.N.P.T. connection is provided. An easy-to-reach shutoff valve (C) must be located outside of the dryer.

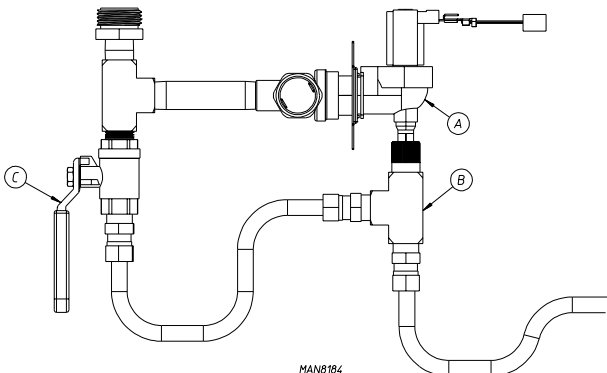


Figure: Example of F.S.S. with manual bypass

Start-Up

Check:

- Gas dryers – All shutoff valves should be open.
- All back panels (guards) should be in position.
- Service doors should be securely closed.
- Lint door or drawer should be fully closed.
- The tumbler (drum) should rotate freely.

Tumbler Coating

The tumbler has a protective coating that should be wiped clean with water and mild detergent solution (non flammable). Alternatively, tumble a load of old garments that are wetted with water and mild detergent solution (non flammable).

Preoperational Test

A performance check is needed after the dryer is fully installed and before the dryer is ready for use.

Start the dryer (refer to the Operating Instructions below).

Gas Dryers – Check for flame ignition (may need more than one attempt to purge air from the gas supply pipe).

Electric heat – Check the contactor(s) are cycling the electric oven (heater) properly.

Steam heat – Check the steam solenoid functions correctly.

Safety Related Circuits

The dryer should stop when the main door is opened.

The dryer should stop when the lint door is opened.

If any failed test cannot be corrected, or if other concerns are detected, contact your local service organization or dealer.

Ready for Use

If all tests are acceptable the machine is ready for use.

Installer must instruct the end user on how to operate the dryer before leaving.

Operating Instructions

Coin Models

The display will show “Ready, Insert **amount** to Start” when the dryer is ready for use.

Insert the required coin(s). The display will show “Select Temperature” when the “amount-to-start” has been satisfied.

Select the desired cycle by pressing “HI,” “MED,” or “LO.”

The dryer will start and display the cycle and remaining time.

Press “**|||**” to pause the dryer. Select desired cycle to restart.

Non-Coin Models

The display will show “Ready” when the dryer is ready for use.

Press the letter on the keypad to select the desired cycle.

The dryer will start and display the cycle and remaining time.

Press “**O**” to stop the dryer.

Press the “**O**” key again to clear the dry cycle, press “**|||**” to resume the current cycle, or select a different cycle to restart.

Routine Maintenance

A schedule should be established for the periodic inspection, cleaning, and lint removal. The frequency of cleaning can best be determined from experience at each location. Ideal drying performance depends on sufficient airflow. Lint accumulation can restrict airflow and is also a fire hazard.

Avoid using harsh chemicals when cleaning the dryer.

Suggested Cleaning Schedule

(Based on approximately 6-8 hours of daily operation)



To avoid electric shock and contacting moving parts, discontinue electrical supply any time a panel (without an interlock switch) or guard is removed.

Every Three or Four Loads

Clean the lint screen - located behind the lint door (lower front panel). Replace the lint screen if it is torn or damaged.

Weekly

Clean lint accumulation from the lint chamber, thermostat and operating temperature sensor (located just below the drum).

Steam dryers: carefully clean steam coil fins (which are easily damaged). We suggest using a vacuum cleaner with brush attachment. Straighten bent fins with a fin comb.

90 Days

Clean any lint accumulation in and around the dryer.

Particular attention must be given to the removal of lint from the burner area (located behind the upper front panel - control door) and the area near the drive and fan motors.

Caution: Avoid touching the igniter and flame-sensor probes.

6 Months

Remove lint accumulation in the fresh-air intake openings and in the exhaust ductwork.

Remove lint that may interfere with any back-draft damper

Check all back-draft dampers for proper operation.

Service / Parts Information

Service must be performed by a qualified technician. If service is required, contact the reseller who sold you the equipment. If the reseller cannot be reached then contact our Service Department for a reseller in your area.

Replacement parts can be obtained from your reseller or the ADC factory. When ordering replacement parts from the factory, you can FAX your order to ADC at +1 (508) 678-9447 or telephone our Parts Department at +1 (508) 678-9000. Please be prepared to provide the dryer model number, serial number, description of the part, and the part number (if known).

This dryer is equipped with two manually resettable high-limit thermostats. The burner high-limit is located in the top center of the dryer behind the control door (upper front panel). The exhaust high-limit is located in the duct above the lint trap (and below the drum).

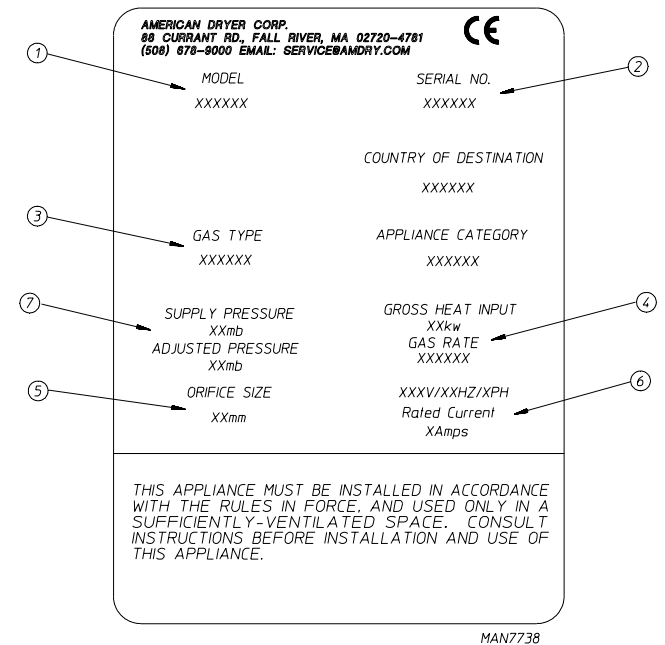
The wiring diagram for the dryer is located behind the control panel.

Data Label Information

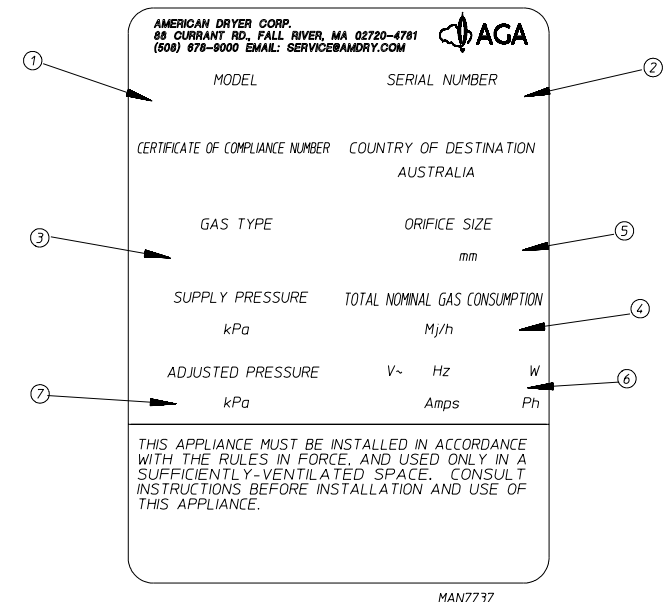
When contacting ADC, certain information is required to ensure proper service/parts information from ADC. This information is on the data label affixed to the right side panel area at the rear of the dryer. When contacting ADC, please have the model number and serial number available.

1. MODEL – Dryer model number.
2. SERIAL NUMBER – Unique identification number.
3. GAS TYPE – Gas type the dryer is constructed for.
4. HEAT INPUT – Rate of combustion.
5. ORIFICE SIZE – Injector opening (in mm).
6. ELECTRIC SERVICE – Electric supply type.
7. GAS PRESSURE – Supply and regulated pressure.

CE Rating Plate



AGA Rating Plate



Non-Coin Programming

PHASE 7.2.2 OPL PROGRAMMING LOCATIONS (MAX TEMP 160°F)

TO ENTER PROGRAMMING MODE PRESS [] & [] KEYS TOGETHER.

TO EXIT PROGRAMMING MODE PRESS [] MULTIPLE TIMES
UNTIL DISPLAY RETURNS TO "READY".

- 0: SELECT LANGUAGE
- 1: SELECT SYSTEM PARAMETERS
 - 0: DRYER SETUP
 - 0: SELECT MODEL
 - 1: SYSTEM TEMP
 - 2: ENTER LINT CLEANING FREQUENCY 1 TO 10 HOURS
 - 3: ENTER AUDIO ALERT ON TIMES 0 TO 10
 - 4: ROTATION SENSOR
 - 5: BOARD ADDRESS 00 TO ZZ
 - 6: AUTO CYCLE TIME OUT 0 TO 99 MINUTES
 - 1: REVERSING SETUP
 - 0: ENTER SPIN TIME 30 TO 120 SECONDS
 - 1: ENTER STOP TIME 5 TO 10 SECONDS
 - 2: WRINKLE GUARD SETUP
 - 0: WRINKLE GUARD AUDIO ALERT
 - 3: STEAM INJECTION SETUP
- 2: PROGRAM A - F CYCLES
 - SELECT A - F KEY
 - SELECT CYCLE TYPE
 - AUTO
 - 0: REVERSE MODE
 - 1: ENTER DRY TEMP 160-F (71-C)
 - 2: ENTER DRYNESS LEVEL
 - 3: ENTER CYCLE ADJUSTMENT VALUE 0 TO 99
 - 4: CONTROLLED COOL DOWN
 - 5: ENTER COOL DOWN TIME 0 TO 99 MINUTES
 - 6: ENTER COOL DOWN TEMP 70°F (21°C) TO 100°F (38°C)
 - MANUAL
 - 0: REVERSE MODE
 - 1: ENTER DRY TIME 0 TO 99 MINUTES
 - 2: ENTER DRY TEMP 100-F (38-C) TO 160°F (71°C)
 - 3: CONTROLLED COOL DOWN
 - 4: ENTER COOL DOWN TIME 0 TO 99 MINUTES
 - 5: ENTER COOL DOWN TEMP 70°F (21°C) TO 100°F (38°C)
 - 6: STEAM INJECTION
- 3: PROGRAM 0 - 40 CYCLES
 - ENTER 0 - 40
 - SELECT CYCLE TYPE
 - AUTO
 - 0: REVERSE MODE
 - 1: ENTER DRY TEMP 160-F (71-C)
 - 2: ENTER DRYNESS LEVEL
 - 3: ENTER CYCLE ADJUSTMENT VALUE 0 TO 99
 - 4: CONTROLLED COOL DOWN
 - 5: ENTER COOL DOWN TIME 0 TO 99 MINUTES
 - 6: ENTER COOL DOWN TEMP 70°F (21°C) TO 100°F (38°C)
 - MANUAL
 - 0: REVERSE MODE
 - 1: ENTER DRY TIME 0 TO 99 MINUTES
 - 2: ENTER DRY TEMP 100-F (38-C) TO 160°F (71°C)
 - 3: CONTROLLED COOL DOWN
 - 4: ENTER COOL DOWN TIME 0 TO 99 MINUTES
 - 5: ENTER COOL DOWN TEMP 70°F (21°C) TO 100°F (38°C)
 - 6: STEAM INJECTION
- 4: DEFAULT SETTINGS
 - ENTER PASSWORD
 - (PRESS "1" "2" "3")
 - CONFIRM DEFAULTS

P/N:114048

Phase 7.2 Non-Coin Diagnostic Codes

MAIN DOOR OPENED – A main door or door circuit is open.

EXHAUST HIGH TEMP FAULT – Tumbler is above 180° F (82.2° C).

LINT ACCESS OPEN – Lint drawer or lint door circuit is open.

EXHAUST HIGH LIMIT FAULT – Temp. disk under tumbler is open.

SAIL SWITCH CLOSED FAULT – Sail switch is closed – should be open at the start of a cycle.

SAIL SWITCH OPEN FAULT – Sail switch remained open after the cycle started. Should have closed.

BURNER HIGH LIMIT FAULT – Burner temp. disk has opened.

BURNER IGNITION CONTROL – No signal to gas valve from (DSI) module during trial for ignition time. DSI module is bad.

IGNITION FAULT – Gas valve did not remain open after trial for ignition. Indicates that no flame was detected.

FLAME FAULT – Flame was detected during trial for ignition but failed later.

ROTATION FAULT – Indicates the tumbler is not rotating.

OPEN EXHAUST TEMPERATURE PROBE – Indicates the exhaust temperature probe is open or shorted.

OPEN FIRE SUPPRESSION SYSTEM (F.S.S.) PROBE FAULT – Indicates the temperature probe for the F.S.S. is open or shorted.

LOW VOLTAGE FAULT – Volt dropped below the operating value.

EE PROM FAULT ### – Error in memory location. Fault correction:

Enter the program mode by pressing the UP and STOP keys.

Press "4" and ENTER keys in password "FAA" Press UP ARROW.

Press enter to confirm reset of EE PROM.

Inputs (Red L.E.D.s)

All indications are with L.E.D. lit

ESTOP – Indicates E-STOP has been pressed.

GAS_V – Indicates the gas valve is open (ON).

BRHL – Indicates the burner high limit disk is closed.

SAIL – Indicates the sail switch is closed.

EXHL – Indicates the exhaust high limit disk is closed (temperature below 190° F [87.8° C]).

MAIN – Indicates the status of main door is closed.

LINT – Indicates the lint drawer is closed.

FUSE – Indicates the status of the control voltage after POWER ON button has been pressed.

Outputs (Green L.E.D.s)

All indications are with L.E.D. lit

AUX – This is for a spare output to be programmed.

STEAM – Indicates the status of the steam injection output.

_HEAT – Indicates the status of the heat output.

AIR – Indicates the status of the air jet output.

REV – Indicates the status of the tumbler reverse direction output.

If the request to tumble the drum in the reverse direction is made, then the L.E.D. is ON.

FWD – This L.E.D. will indicate the status of the tumbler forward direction output.

FAN – This L.E.D. will indicate the status of the fan output.

Coin Programming

Enter Programming Mode By Placing
The Programming Switch On The Phase 7 Board Up
While No Cycle Is In Progress.
"Program Mode" Will Then Be Displayed.

Navigating Within The Programming Mode:

"Med" Key To Enter A Program Location.
"Hi-temp" / "Lo-temp" Keys Increase / Decrease
Program Location.
"Pause" Key Rejects Entry And Moves To Next
Program Location.

Changing A Parameter Value:

With Parameter Value Displayed Pressing "Lo Temp"
Or "High Temp" Changes The Parameter Value.
"Med" Key Must Be Pressed To Accept A New Parameter.

PHASE 7.3.2 COIN PROGRAM LOCATION SUMMARY	
(MAX TEMP 150°F)	
TO ENTER OR EXIT PROGRAMMING MODE TOGGLE PROGRAM SWITCH UP OR DOWN RESPECTIVELY	
KEYPAD LEGEND	
HI KEY- INCREMENT OR TOGGLE	
MED KEY- ENTER	
LO KEY- DECREMENT OR TOGGLE	
PAUSE KEY- EXIT LOCATION WITHOUT SAVING	
PL #01 CONTROL SETTINGS	
LANGUAGE	
TEMP SCALE	
BUZZER MODE	
BEEP COUNT 1 TO 9 BEEPS	
DRY MODE	
PAUSE TIME 0 TO 3 MINUTES	
READY PROMPT	
PL #02 MACHINE SETTINGS	
MODEL	
ROTATION SENSOR	
LINT CLEANING FREQUENCY 0 TO 10 HOURS	
AXIAL THERMISTOR INPUT	
THERMISTOR TEMP SET POINT 100 TO 400°F	
PL #03 HI KEY SETTINGS	
TIME FOR AMOUNT TO START 1 TO 99 MINUTES	
TIME FOR TOP OFF 1 TO 99 MINUTES	
DRY TEMP 100 TO 150-F	
COOL TIME 0 TO 9 MINUTES	
PL #04 MED KEY SETTINGS	
TIME FOR AMOUNT TO START 1 TO 99 MINUTES	
TIME FOR TOP OFF 1 TO 99 MINUTES	
DRY TEMP 100 TO 150-F	
COOL TIME 0 TO 9 MINUTES	
PL #05 LO KEY SETTINGS	
TIME FOR AMOUNT TO START 1 TO 99 MINUTES	
TIME FOR TOP OFF 1 TO 99 MINUTES	
DRY TEMP 100 TO 150-F	
COOL TIME 0 TO 9 MINUTES	
PL #06 VENDING PARAMETERS	
CURRENCY SYMBOL	
VENDING MODE	
VENDING SAFEGUARD	
LEFT COIN DENOMINATION 0.05 TO 25.00	
RIGHT COIN DENOMINATION 0.05 TO 25.00	
AMOUNT TO START 0.05 TO 25.00	
AMOUNT FOR TOP OFF 0.05 TO 25.00	
PL #07 FAULT RECORDING	
NO FAULTS/FAULTS	

P/N: 114059

Typical Programming Example:

Change a single coin acceptor from factory setting to yield 20 minutes for \$.50, \$.50 as the minimum amount to start, and no differential in regard to temperature key selection.

Settings: Time for Amt to Start (PL03, PL04, PL05) 20
Left Coin Denomination (PL06) \$.25
Amount to Start (PL06) \$.50

Clearing Coin Credit:

NO CYCLE IN PROGRESS AND PROGRAM SWITCH DOWN.

Hold PAUSE while pressing HI 3 times, LO twice, and MED once.

"Clear Credit?" will appear. Press any key to complete.

Accessing and Clearing Coin Vault Total

Enter program mode by switching program switch (up) while no cycle is in progress.

Press HI – "Coin Vault total is \$XXX" will appear.

Press HI – "Clear Coin Vault Total?" will appear.

Press MED to clear this amount or PAUSE to leave as is.

Hot Keys:

In the Coin Mode Hot Keys are enabled while in a cycle by placing the program switch in the program (up) position.

In Free Mode Hot Keys are always enabled.

HI – Remaining credit – coin mode / remaining time – free mode.

MED – Temps – Exhaust / left, S.A.F.E. / right, Axial / middle (Axial dryer)

LO – Tumbler RPM

S.A.F.E. TEST: Switch to program mode. Press and hold the "Pause" key until prompted to press MED to open the water.

L.C.D. Operating Messages

When Display Reads "Out of Order"

Pressing LO displays one of the causes listed below.

MODEL FAULT – Wrong model selected at PL01/3rd position.

SAIL SWITCH CLOSED – Sail switch closed before starting.

SAIL SWITCH OPEN – Sail switch failed to close after starting.

BURNER HI-LIMIT – Oven thermostat switch has opened.

EXHAUST HI-LIMIT – Tumbler thermostat switch has opened.

BURNER CONTROL – No gas valve signal – Bad DSI unit.

IGNITION FAULT – No flame ignition detected thru all retries.

FLAME FAULT – Flame detected at ignition but failed later.

CLEAN LINT – Due to failure to clean out lint.

CHECK CONTROL BOARD FUSE #2 – 2 on Phase 7 board is open.

EXHAUST PROBE FAULT / AXIAL – Indicated probe has failed.

ROTATION SENSOR – Rotation sensor or tumbler drive has failed.

EXHAUST HI-TEMP – Overheating condition has occurred.

BURNER PURGE FAULT – Gas return signal before heat output.

"S.A.F.E. System Disabled"

In Coin Mode hold "Pause" and "LO" keys down together.

OPEN / SHORTED THERMISTOR – Probe or probe circuit bad.

OPEN / SHORTED WATER VALVE – Water valve or circuit bad.

WATER NOT CONNECTED – No water pressure at sol. valve.

"S.A.F.E. System (was) Activated"

Indicates the S.A.F.E. system is active or was active because a fire was detected. The buzzer sounds at a fast pace while the system is active.

A service call to your local dealer is required to reset the microprocessor controller (computer). Qualified personnel will inspect the dryer and, if it is found to be safe for operation, reset the control.

Warranty Information _____

For any warranty-related issues, please contact our Warranty Department at +1 (508) 678-9000.

If you need a copy of the warranty covering your dryer please contact the reseller who sold you the equipment. If the reseller cannot be contacted then call our Warranty Department.

Before calling, please have the dryer model and serial number (from rating plate) and the installation date of the dryer.

The rating plate can be found behind the control panel on some dryers and inside the back guard on other dryers.

All warranty claims or inquiries should be addressed to our Warranty Parts Department. To expedite warranty claim, please follow these procedures:

Do not ship any part to us without proper authorization (Return Material Authorization or R.M.A.) from the factory. An R.M.A. is only valid for 30 days.

Ship the failed component, a copy of the R.M.A., and any other supporting documentation.

Label or tag each part with the model and serial number (from the rating plate) of the dryer it was removed from. Warranty tags (Part No. 450064) are available (no charge) from ADC.

Describe the nature of the failure (be specific).

Provide the date that the dryer was installed.

Provide the date when the component failed.

Specify if the part is being returned for a credit, replacement, or refund. If a part is marked for a credit or a refund, please provide the invoice number of the replacement part purchase.

You must clearly note your company's complete name and address on the outside of the package.

All returns should be shipped to the factory with adequate insurance and "proof-of-delivery" from the shipping company.

No replacements, credits, or refunds will be issued for components damaged during transit. All returns must be properly packaged to prevent such damage, and any claims are the responsibility of the shipper.

Shipping charges are your responsibility. Any C.O.D. or "Collect" shipments will be refused.

You will be notified if your warranty claim cannot be processed due to insufficient or missing information. We must receive this information within 30 days otherwise the claim will be rejected and the part will be discarded.

For your convenience, log the following information:

Date of Purchase: _____

Model Number: _____

Reseller's Name: _____

Serial Number: _____

This product embodies advanced concepts in engineering, design, and safety. If this product is properly maintained, it will provide many years of safe, efficient, and trouble-free operation.

We have tried to make this manual as complete as possible and hope that you will find it useful. The manufacturer reserves the right to make changes from time to time and without notice or obligation. The illustrations included in this manual may not depict your particular dryer exactly.

NOTES _____

