

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Dayton® Compact Air Curtain with Motor

## Description

Dayton Compact Air Curtains require only 7 1/2" above doors for mounting. The newest low profile models (only 7" in height) are designed to fit over existing doors at customer entrances. Ideally suited as an environmental thermal barrier for retail stores, hospitals, airports, post offices and schools. Also for use in pass-through food service windows and walk-in coolers and freezers. Units create an "open" atmosphere, welcoming customers into retail establishments. Additional savings on utility costs are realized by conserving energy.

## Dimensions

----- Dimensions -----				
Model	A	B	C	D
3KB43B	5 7/8"	25"	6 3/4"	7 3/8"
4HZ94B	5 7/8"	36"	6 3/4"	7 3/8"
4HZ95B	5 7/8"	48"	6 3/4"	7 3/8"
4YP01B	5 7/8"	42"	6 3/4"	7 3/8"
4YP02B	5 7/8"	59"	6 3/4"	7 3/8"

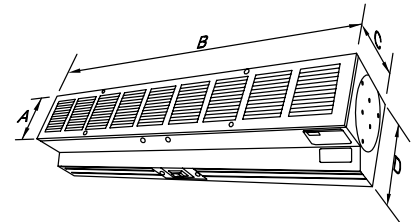


Figure 1 – Dimensions

## Specifications and Performance

Model	Unit Width	-----Air Delivery-----		Total HP	Max Amps	Volts	Heights Up To
		Avg. FPM at Nozzle	CFM at Nozzle				
3KB43B	25"	1350	550	1/10	0.9	120	5 Ft.
4HZ94B	36"	1800/1350	1050/790	1/10	1.1	120	8 Ft.
4HZ95B	48"	1800/1350	1350/1010	1/8	1.6	120	8 Ft.
4YP01B	42"	1800/1350	1200/900	1/8	1.6	120	8 Ft.
4YP02B	60"	1800/1350	1700/1280	1/8	1.9	120	8 Ft.

## Unpacking

- Place packaged unit on floor with arrows pointing up.
- Remove staples from top of carton and fold back sides.
- Carefully remove cabinet from carton and place on work surface.

**CAUTION** Do NOT lift air curtain by its louver, or damage may result.

- Unscrew the front air intake grill fixing screws and remove the grill.

**NOTE:** Discard styrofoam packing and corrugated motor supports at this time.

**NOTE:** After unpacking, inspect carefully for damage that may have

occurred during transit. Also check for loose or missing parts.

## General Safety Information

**WARNING** To reduce the danger of fire, electric shock or injury to persons read the following:

- Use this unit only for the purposes intended by the manufacturer. If you have questions contact the manufacturer.
- Before servicing or cleaning unit, turn power off at service panel and lock panel to prevent power from being turned on accidentally.
- Installation of unit and electrical wiring must be done in accordance

with all applicable codes and standards, including fire-rated construction, by qualified persons only.

- When cutting or drilling into walls or ceilings, do not damage other existing electrical wiring or utilities.
- Check the power source to make certain that it conforms to the electrical requirements of the unit. Before installing or servicing the unit be certain that the power source is disconnected. To prevent any unexpected application of power, lock power source in the open position and tag it. Failure to do so could result in fatal electric shock.

# Dayton® Compact Air Curtain with Motor

## General Safety Information (Continued)

**⚠ WARNING** Do NOT rely on a thermostat or other switch as the means of disconnecting power when installing or servicing the unit. Always disconnect power at the main circuit breaker. Failure to do so could result in fatal electric shock.

- Wiring must be done in accordance with the United States National Electrical Code (NEC), all applicable local codes, and all instructions in this manual. Any variance voids the warranty and can create unsafe conditions. All wiring should be installed by a qualified electrician, using copper wire only.
- Pay special attention to grounding information related to this unit. To prevent the risk of electrocution, the unit must be adequately grounded. This can be accomplished by connecting a grounded conductor between the service panel and the grounding lug located in the wiring compartment. To ensure proper grounding, the grounding means must be tested by a qualified electrician.
- Do not insert fingers or foreign objects into the air curtain. Do not block, tamper or touch it while in operation or immediately after it has been turned off, as some parts may be hot enough to cause injury if touched.

**⚠ WARNING** This unit must NOT be used in potentially dangerous locations where flammable, explosive, chemical-laden or wet atmospheres exist.

- Do not attach ductwork to this unit or attempt to use it as a makeshift air heater. Such use voids the warranty and can create unsafe conditions.

**⚠ WARNING** To reduce the danger of fire or electric shock, do NOT use this air curtain with any solid-state speed control device.

### Installation

- Determine exact mounting location. Then mark position of keyholes on backside of cabinet.
- Drill holes and attach mounting hardware (not included).

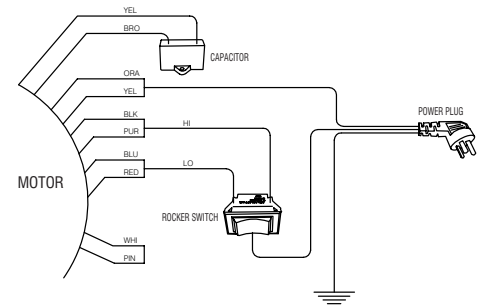
**IMPORTANT:** The hardware and the supporting structure must be able to support a minimum load of 150 lbs.

**NOTE:** Installation should comply with the local building code.

- Mount cabinet to wall and tighten hardware.
- Replace intake grille. With louvers facing down fasten in place with knurled nuts.

### ELECTRICAL CONNECTIONS

**⚠ WARNING** All air curtains must be installed by qualified personnel only.



**Figure 2 – Wiring Diagram for 120 Volt Connection**

- These model units are factory connected for 120V/60Hz, complete with approved power cord and plug. Unit is ready to operate.
- Installation of wiring, protection and grounding must be according to the National Electrical Code (NEC) in the United States and all local codes.

**⚠ WARNING** The fan has an internal self-resetting, thermal overload protector. Always disconnect from power supply before servicing.

**⚠ CAUTION** Make sure amp rating of the on/off switch exceeds amp rating on motor nameplate.

- Turn power on.

**NOTE:** Air curtain has high/low selector switch. See Operation section for additional information.

## Models 3KB43B, 4HZ94B, 4HZ95B, 4YP01B and 4YP02B

### Operation

1. Once power is connected to the unit, fans will start at either high or low preset speed.
2. The high or low speed indicator controls the flow of air to individual desired performance and energy efficiency.
3. Air direction is controlled by adjustable vanes at the nozzle to compensate for possible draft conditions.

**IMPORTANT:** In freezer or cooler applications unit is always mounted on the outside (warm side) of freezer or cooler.

**NOTE:** Cold air escapes near floor level and warm air penetrates curtain near top of doorway. For some applications and conditions it may be necessary to adjust the direction of the nozzle louvers and to switch the high/low settings.

**NOTE:** Best performance is achieved when interior and exterior pressure is equal.

### Maintenance

**⚠ WARNING** Always disconnect and lock out power supply before servicing or cleaning.

### LUBRICATION

Ball bearings are permanently lubricated and do not require any further lubrication.

### CLEANING

1. The air curtain cabinet may be wiped off with a damp cloth. Do not use solvents or harsh detergents. Do not allow motor to get wet.

**NOTE:** Keep air intake louvers clean. Dirt and dust accumulations can affect performance.

2. Check blower wheels for dirt accumulation twice a year and clean.

### LIMITED WARRANTY

**DAYTON ONE-YEAR LIMITED WARRANTY.** Dayton® Compact Air Curtain with Motor, Models covered in this manual, are warranted by Dayton Electric Mfg. Co. (Dayton) to the original user against defects in workmanship or materials under normal use for one year after date of purchase. Any part which is determined to be defective in material or workmanship and returned to an authorized service location, as Dayton designates, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at Dayton's option. For limited warranty claim procedures, see PROMPT DISPOSITION below. This limited warranty gives purchasers specific legal rights which vary from jurisdiction to jurisdiction.

**LIMITATION OF LIABILITY.** To the extent allowable under applicable law, Dayton's liability for consequential and incidental damages is expressly disclaimed. Dayton's liability in all events is limited to and shall not exceed the purchase price paid.

**WARRANTY DISCLAIMER.** Dayton has made a diligent effort to provide product information and illustrate the products in this literature accurately; however, such information and illustrations are for the sole purpose of identification, and do not express or imply a warranty that the products are MERCHANTABILITY, or FIT FOR A PARTICULAR PURPOSE, or that the products will necessarily conform to the illustrations or descriptions. Except as provided below, no warranty or affirmation of fact, expressed or implied, other than as stated in the "LIMITED WARRANTY" above is made or authorized by Dayton.

**PRODUCT SUITABILITY.** Many jurisdictions have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Dayton attempts to assure that its products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the product is installed or used. Before purchase and use of a product, review the product applications, and all applicable national and local codes and regulations, and be sure that the product, installation, and use will comply with them.

Certain aspects of disclaimers are not applicable to consumer products; e.g., (a) some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you; (b) also, some jurisdictions do not allow a limitation on how long an implied warranty lasts, consequently the above limitation may not apply to you; and (c) by law, during the period of this Limited Warranty, any implied warranties of implied merchantability or fitness for a particular purpose applicable to consumer products purchased by consumers, may not be excluded or otherwise disclaimed.

**PROMPT DISPOSITION.** Dayton will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within limited warranty. For any product believed to be defective within limited warranty, first write or call dealer from whom the product was purchased. Dealer will give additional directions. If unable to resolve satisfactorily, write to Dayton at address below, giving dealer's name, address, date, and number of dealer's invoice, and describing the nature of the defect. Title and risk of loss pass to buyer on delivery to common carrier. If product was damaged in transit to you, file claim with carrier.

Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714 U.S.A.

**For Repair Parts, call 1-800-323-0620**

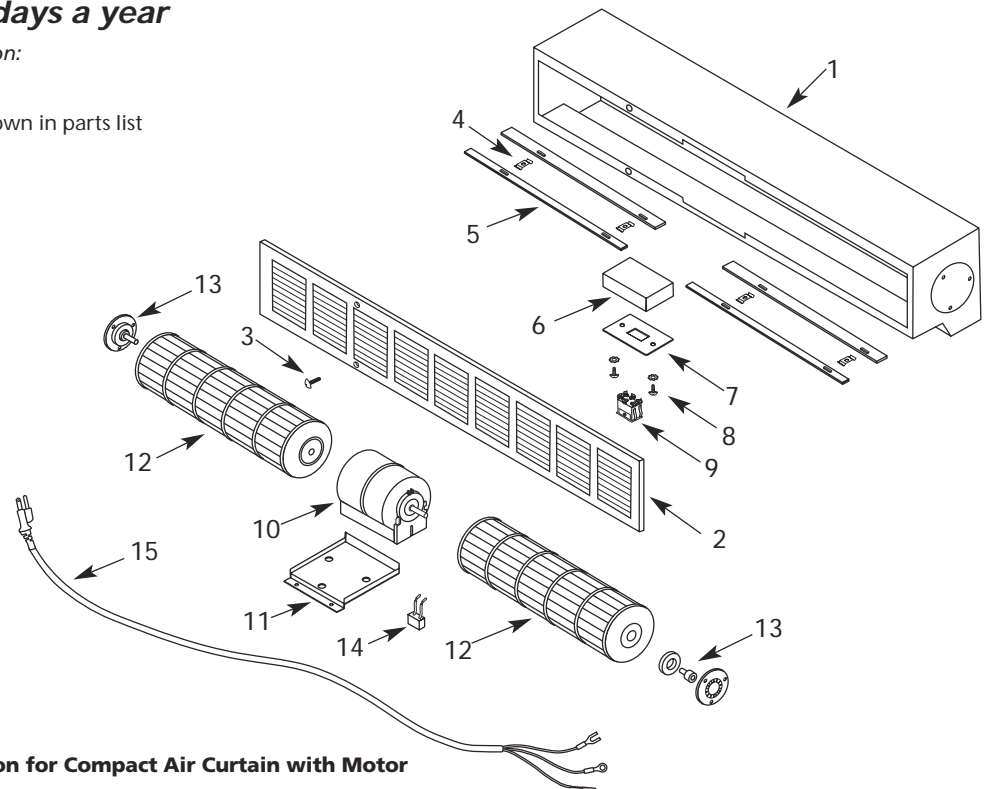
**24 hours a day – 365 days a year**

Please provide following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Address parts correspondence to:

Grainger Parts  
 P.O. Box 3074  
 1657 Shermer Road  
 Northbrook, IL 60065-3074 U.S.A.



**Figure 3 – Repair Parts Illustration for Compact Air Curtain with Motor**

**Repair Parts List for Compact Air Curtain with Motor**

Reference Number	Description	Part Number for Models:					Qty.
		3KB43B	4HZ94B	4HZ95B	4YP01B	4YP02B	
1	Cabinet	CCAB25	CCAB36	CCAB48	CCAB42	CCAB60	1
2	Cabinet intake grill	CG25	CG36	CG48	CG42	CG60	1
3	Cabinet intake grill screw	*	*	*	*	*	(**)
4	Louver support with screw	LS	LS	LS	LS	LS	4
5	Cabinet louver Kit	CL25	CL36	CL48	CL42	CL60	4
6	Electric box	CSB	CSB	CSB	CSB	CSB	1
7	Electric box cover	CSBC	CSBC	CSBC	CSBC	CSBC	1
8	Electric box cover screws	*	*	*	*	*	2
9	Rocker switch (high-off-low)	N/A	RSW20	RSW20	RSW20	RSW20	1
10	Motor	CM1110	CM1110	CM1118	CM1118	CM1114	1
11	Motor mount adapter	CMAP	CMAP	CMAP	CMAP	CMAP	1
12	Blower wheel	CBW25	CBW36	CBW48	CBW42	CBW60	2
13	Bearing set ass'y	CBA	CBA	CBA	CBA	CBA	2
14	Capacitor	CCAP25	CCAP36	CCAP48	CCAP42	CCAP60	1
15	Power cord	CPG	CPG	CPG	CPG	CPG	1

(\*) Standard hardware item, available locally

(\*\*) 4 each-3KB43B, 4HZ94B, 4HZ95B, and 4YP01B, 8each-4YP02B