

The most cost-effective  
environmental & sanitation  
barrier you'll **never** see



Sleek, Quiet, Consumer-Friendly Design  
Variable Speed Control  
Customizable

## LoPro2 Series commercial air curtains

### LOPRO2 INNOVATIONS

- Low profile design
- Ultra quiet operation
- Simple installations
- Variable Speed Controls
- Low Maintenance & operations costs
- Heating Options – Electric, Hot Water, and Steam
- Standard Color – Obsidian Black  
(Special Colors – Titanium Silver/Pearl  
White/Stls Steel - \$\$ adder)

### FEATURES IN ALL MARS AIR CURTAINS

- Maintains consistent interior temperature
- Minimizes dirt, dust, and fumes
- Controls flying insects
- Allows for unobstructed views...enhancing safety
- Effective environmental control
- Reduced energy consumption

800.421.1266 marsair.com



atmosphere is everything

7'-8'

MODEL SERIES  
INSTALLATION HEIGHTS

7'-8'

LPV2

7'-8'

SANITATION, ETL,  
LPN2,N2 NH2

8'-10'

STD2

8'-12'

PH

10'-12'

HV2

14'-16'

EP2

12'-16'

WMI, WMH

12'-30'

BD

# LoPro2 Series commercial air curtains

7'-8'



Model	Door Width Inches	Door Height Feet	FULL LOAD AMPS/ 1 $\phi$		Sound Pressure Level (dBA)	Net Wt. LBS. Unheated
			115V	208V/ 230V		
LPV2 25(Drive-Up Window)	25"	5'	2.4	1.2/1.2	49	20
LPV2 36	36"	7'-8'	2.4	1.2/1.2	49	32
LPV2 42	42"	7'-8'	2.4	1.2/1.2	50	35
LPV2 48	48"	7'-8'	2.4	1.2/1.2	52	40
LPV2 60	60"	7'-8'	2.6	1.4/1.4	53	48
LPV2 72	72"	7'-8'	2.6	1.4/1.4	53	58
LPV2 84-2	84"	7'-8'	4.8	2.4/2.4	53	75
LPV2 96-2	96"	7'-8'	4.8	2.4/2.4	53	83
LPV2 108-2	108"	7'-8'	5	2.6/2.6	54	92
LPV2 120-2	120"	7'-8'	5.2	2.8/2.8	54	102
LPV2 144-2	144"	7'-8'	5.2	2.8/2.8	54	122

## VALUE ADDED ACCESSORIES

- Switch
- Control Packages
- Control Panels
- Brackets
- Filters
- Colors & Finishes

All accessories have been specifically designed to enhance installation, operations, and performance.

They have been tested and are compatible to work with the appropriate Mars units to ensure that efficiency standards and performance levels are met.

For a comprehensive list of the most commonly specified accessories, please download our full accessory brochure at: [marsair.com/accessories](http://marsair.com/accessories)

## ADDITIONAL INFORMATION

For info on how quickly our units pay for themselves in energy saving, visit:

[marsair.com/ROI](http://marsair.com/ROI)

For a demonstration of how air curtains work, see our CFD slides at:

[marsair.com/CFD](http://marsair.com/CFD)

For help selecting the right unit for your application, go to:

[marsair.com/configurator](http://marsair.com/configurator)

For submittal information, specifications, and manuals, download:

[marsair.com/techinfo](http://marsair.com/techinfo)

For air curtains 101, view:

[marsair.com/introvideo](http://marsair.com/introvideo)



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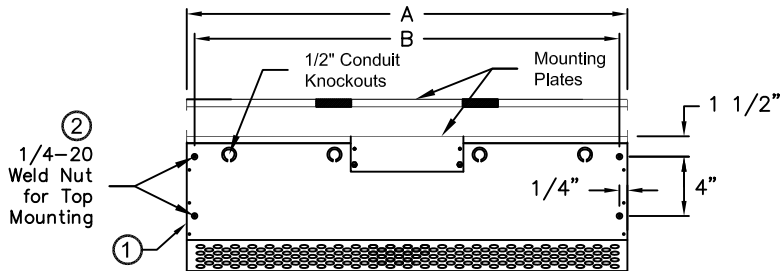
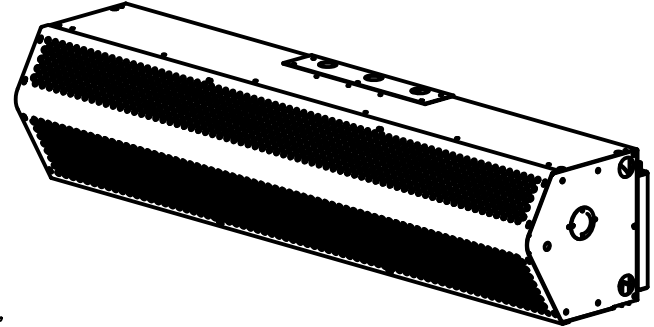
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MODEL NO. LP2 Series	DRAWING NO LPV2U-F	DRAWN BY TVN	CHECKED BY	FILE NAME
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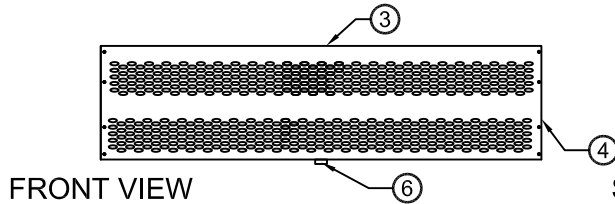
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## Unheated Drawing

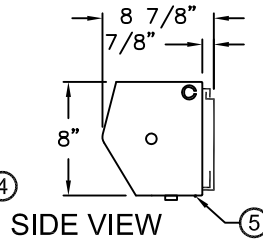
### LPV2 (LoPro2 Variable Speed) Series



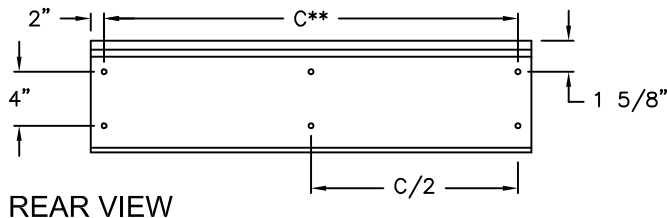
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FRONT VIEW

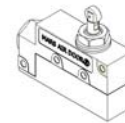


SIDE VIEW

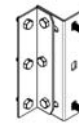


REAR VIEW

#### ⑧ Recommended Accessories



Door Limit Switches



Brackets

\*- Use corresponding letters in "Electrical Data" columns to complete the model numbers.

\*\*-"C" only applies to single units up to 72" units. Dims are not applicable for units 84" and longer.

MODEL NUMBER	OVERALL LENGTH A (In)	MOUNTING LENGTH B (In)	REAR MOUNTING CENTER C (In)
LPV225-1U*-OB	25	24 1/2	21
LPV236-1U*-OB	36	35 1/2	32
LPV242-1U*-OB	42	41 1/2	38
LPV248-1U*-OB	48	47 1/2	44
LPV260-1U*-OB	60	59 1/2	56
LPV272-1U*-OB	72	71 1/2	68
LPV284-2U*-OB	86	85 1/2	N/A
LPV296-2U*-OB	98	97 1/2	N/A
LPV2108-2U*-OB	110	109 1/2	N/A
LPV2120-2U*-OB	122	121 1/2	N/A
LPV2144-2U*-OB	146	145 1/2	N/A

#### Notes:

- This product is designed to meet the National Electric Code (NEC) and ETL Listed (UL 507 and CSA 22.2).
- 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), (2) on each end.
- All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Obsidian Black color, rust preventative electrostatic polyurethane powder coating.
- Cabinet has sufficient strength for fastening to wall on both ends without intermediate support. Units greater than 72" are double units joined with a 2" mounting bracket located in the center and must be center supported, field installed.
- Unit is to be installed such that air flow is unobstructed. Air discharge nozzle containing an adjustable air directional vane with 40° sweep front to back.
- Mounted adjustable speed controller knob allows air velocity to meet a wide range of field conditions. Units greater than 72", the speed controller will be located on the right hand unit and controls both units, field wired.
- Circuit protection as per NEC by others.
- Optional door limit switch and mounting brackets are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the mounting brackets must be installed such that the bottom of the air curtain is not below the door header.

# LPV2 (LoPro2 Variable Speed) Series

Unheated

Model Lengths 25" – 144"



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## Unheated Data Sheet

**Applications: Environmental Separation (up to 8') and Insect Control (up to 7')**

LPV2 (Low Profile Variable 2) Series 2	Mechanical Data						Lab Data	
Model Number	Nozzle Length (in)	Length (in)	Depth (in)	Height (in)	Motor (hp)	Weight (lbs)	Max Velocity (fpm)	Max Volume (cfm)
LPV225-1U*-OB	25	25	9	8	1/6	20	1800	625
LPV236-1U*-OB	36	36	9	8	1/6	32	1800	900
LPV242-1U*-OB	42	42	9	8	1/6	35	1800	1050
LPV248-1U*-OB	48	48	9	8	1/6	40	1800	1200
LPV260-1U*-OB	60	60	9	8	1/6	48	1800	1500
LPV272-1U*-OB	72	72	9	8	1/6	58	1800	1800
LPV284-2U*-OB	86	86	9	8	Two 1/6	75	1800	2100
LPV296-2U*-OB	98	98	9	8	Two 1/6	83	1800	2400
LPV2108-2U*-OB	110	110	9	8	Two 1/6	92	1800	2700
LPV2120-2U*-OB	122	122	9	8	Two 1/6	102	1800	3000
LPV2144-2U*-OB	146	146	9	8	Two 1/6	122	1800	3600

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers

Note: Data above is for 60 Hz, 17% reduction in the performance data with 50 Hz.

### Features:

- ❖ 1/6 HP continuous duty motors
- ❖ Sleek self-contained one piece light gauge corrosion resistant paint lock metal design
- ❖ ETL Certified to conform to UL 507 (US) and CSA 22.2 (Canada) Standards
- ❖ Dynamically balanced corrosion resistant aluminum crossflow wheels
- ❖ Very low profile design, 8" (H) x 8 7/8" (D)
- ❖ Variable speed controller
- ❖ Wall mounting bracket removable for easy installation
- ❖ 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), 2 on each end
- ❖ Cabinet has sufficient strength for fastening to wall on both ends without intermediate support up to 72". (Models 84" to 144" require intermediate support in the center.)
- ❖ Adjustable air directional vane with 40° sweep front to back
- ❖ Standard color is Obsidian Black
- ❖ Rust preventative electrostatic polyurethane powder coating
- ❖ 5 year parts warranty
- ❖ Freight Included (FOB Continental USA)
- ❖ Proudly Made in the USA

### Options and Accessories: (see Accessories Brochure)

- ❖ Motor Control Panels
- ❖ Wall and Overhead Bracket
- ❖ Custom colors and finishes (304SS, 316SS, Aluminum)

### Sound Levels: (measured at 10' in an open field)

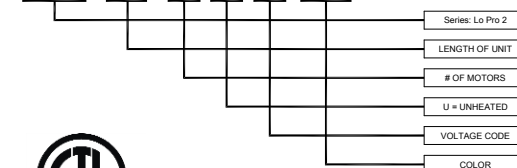
(25" & 36") - 49 dBA, (42") - 50 dBA, (48") - 52 dBA, (60"-96") - 53 dBA & (108"-144") - 54dBA

Electrical Data (FLA)	Unit Voltage (Voltage Code)	
	115v/1Ø (A)	208/230v/1Ø (D)
LPV225-1U*-OB	2.4	1.2
LPV236-1U*-OB	2.4	1.2
LPV242-1U*-OB	2.4	1.2
LPV248-1U*-OB	2.4	1.2
LPV260-1U*-OB	2.6	1.4
LPV272-1U*-OB	2.6	1.4
LPV284-2U*-OB	4.8	2.4
LPV296-2U*-OB	4.8	2.4
LPV2108-2U*-OB	5.0	2.6
LPV2120-2U*-OB	5.2	2.8
LPV2144-2U*-OB	5.2	2.8

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: For Ampacity Multiply FLA X 1.25

LPV2 72 - 1 U D - OB



NOTE: MARS AIR SYSTEMS, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.





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PROJECT

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MODEL NO. LPV2 Series

DRAWING NO LPV2ELC-F

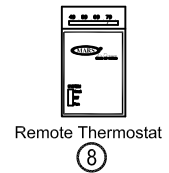
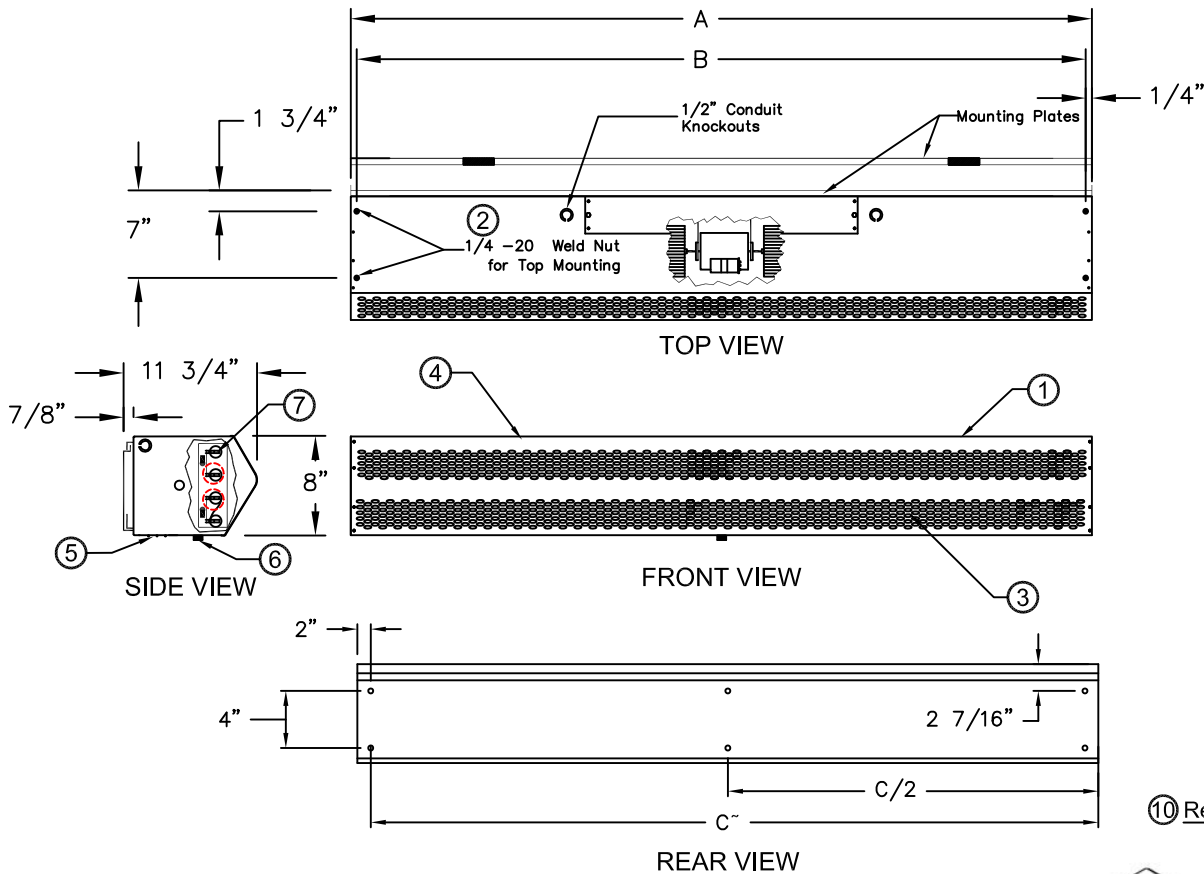
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## Electric Heated Drawing

### LPV2 (LoPro 2 Series)



#### 10 Recommended Accessories



9 Remote Control Panel

Door Limit Switches

\*- "C" only applies to single units up to 72" units. Dims are not applicable for units 84" and longer.

\*- Use corresponding letters in "Voltage Code" then "Wattage Code" columns to complete the model numbers.

Note: MARS reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements additions or replacements for previously purchased equipment.

MODEL NUMBER	OVERALL LENGTH A (in)	MOUNTING WIDTH B (in)	REAR MOUNTING CENTER C (in)
LPV225-1E**-OB	25	24 1/2	21
LPV236-1E**-OB	36	35 1/2	32
LPV242-1E**-OB	42	41 1/2	38
LPV248-1E**-OB	48	47 1/2	44
LPV260-1E**-OB	60	59 1/2	56
LPV272-1E**-OB	72	71 1/2	68
LPV284-2E**-OB	86	85 1/2	N/A
LPV296-2E**-OB	98	97 1/2	N/A
LPV2108-2E**-OB	110	109 1/2	N/A
LPV2120-2E**-OB	122	121 1/2	N/A
LPV2144-2E**-OB	146	145 1/2	N/A

#### Notes:

- This product is designed to meet the National Electric Code (NEC) and is ETL listed for the US and Canada (UL 2021 and CSA 22.2).
- 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), (2) on each end.
- All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Obsidian Black color, rust preventative electrostatic polyurethane powder coating.
- Cabinet has sufficient strength for fastening to wall on both ends without intermediate support. Units greater than 72" are double units joined with a 2" mounting bracket located in the center and must be center supported.
- Unit is to be installed such that air flow is unobstructed. Unit has a 3" air discharge nozzle containing adjustable air directional vanes with 40° sweep front to back.
- Mounted adjustable speed controller knob allows air velocity to meet a wide range of field conditions. Units greater than 72", the speed controller and heater on/off toggle controls will be located on the right hand unit and controls both units.
- Control panel is pre-wired and pre-mounted inside the cabinet. Units greater than 72" require dual power supplies, one for each air curtain. Optional remote mounted available.
- Wall mounted thermostat is shipped loose and field installed.
- Circuit protection as per NEC by others.
- Optional remote control panel, door limit switch and mounting brackets are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the mounting brackets must be installed such that the bottom of the air curtain is not below the door header.

# LPV2 (LoPro2 Variable Speed) Series

Electric Heated

Model Lengths 25" – 144"



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## Electric Heated Data Sheet

### Applications: Environmental Separation (up to 8')

LPV2 (Low Profile Variable 2) Series 2	Mechanical Data						Lab Data	
Model Number	Nozzle Length (in)	Length (in)	Depth (in)	Height (in)	Motor (hp)	Weight (lbs)	Max Velocity (fpm)	Max Volume (cfm)
LPV225-1E**-OB	25	25	12	8	1/6	25	1800	625
LPV236-1E**-OB	36	36	12	8	1/6	35	1800	900
LPV242-1E**-OB	42	42	12	8	1/6	40	1800	1050
LPV248-1E**-OB	48	48	12	8	1/6	45	1800	1200
LPV260-1E**-OB	60	60	12	8	1/6	50	1800	1500
LPV272-1E**-OB	72	72	12	8	1/6	56	1800	1800
LPV284-2E**-OB	86	86	12	8	Two 1/6	76	1800	2100
LPV296-2E**-OB	98	98	12	8	Two 1/6	86	1800	2400
LPV2108-2E**-OB	110	110	12	8	Two 1/6	88	1800	2700
LPV2120-2E**-OB	122	122	12	8	Two 1/6	95	1800	3000
LPV2144-2E**-OB	146	146	12	8	Two 1/6	110	1800	3600

\* - Use corresponding letters in "Electrical Data" & "Heater Wattage Data" columns to complete the model numbers.

Note: Data above is for 60 Hz, 17% reduction in the performance data with 50 Hz.

### Features:

- ❖ 1/6 HP continuous duty motors
- ❖ Sleek self-contained one piece light gauge corrosion resistant paint lock metal design
- ❖ ETL Certified to conform to UL 2021 (US) and CSA 22.2 (Canada) Standards
- ❖ Dynamically balanced corrosion resistant aluminum crossflow wheels
- ❖ Very low profile design, 8" (H) x 8 7/8" (D)
- ❖ Variable speed controller
- ❖ Wall mounting bracket removable for easy installation
- ❖ 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), 2 on each end
- ❖ Cabinet has sufficient strength for fastening to wall on both ends without intermediate support up to 72". (Models 84" to 144" require intermediate support in the center.)
- ❖ Adjustable air directional vane with 40° sweep front to back
- ❖ Standard color is Obsidian Black
- ❖ Rust preventative electrostatic polyurethane powder coating
- ❖ 1 year parts warranty
- ❖ Freight Included (FOB Continental USA)
- ❖ Proudly Made in the USA

LPV2 (Low Profile Variable 2) Series 2	Single Phase				Three Phase					
	Heater Amperage		Heater Wattage	Temp Rise	Heater Amperage				Heater Wattage	Temp Rise
Model Number	208v/10 (B)	230v/10 (C)	kW (C)	°F	208v/30 (E)	230v/30 (F)	460v/30 (H)	575v/30 (I)	kW (G)	°F
LPV225-1E**-OB	30.0	27.0	6.1	31	-	-	-	-	-	-
LPV236-1E**-OB	30.0	27.0	6.1	22	28	26.0	13.0	11.0	10.0	36
LPV242-1E**-OB	39.0	35.0	8.0	25	28	26.0	13.0	11.0	10.0	31
LPV248-1E**-OB	39.0	35.0	8.0	22	37	33.0	17.0	14.0	13.0	35
LPV260-1E**-OB	46.0	42.0	9.5	21	37	33.0	17.0	14.0	13.0	28
LPV272-1E**-OB	46.0	42.0	9.5	17	37	33.0	17.0	14.0	13.0	23
LPV284-2E**-OB	-	-	-	-	56	51.0	26.0	21.0	20.0	31
LPV296-2E**-OB	-	-	-	-	73	66.0	33.0	27.0	26.0	35
LPV2108-2E**-OB	-	-	-	-	73	66.0	33.0	27.0	26.0	31
LPV2120-2E**-OB	-	-	-	-	73	66.0	33.0	27.0	26.0	28
LPV2144-2E**-OB	-	-	-	-	73	66.0	33.0	27.0	26.0	23

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: For Ampacity Multiply FLA X 1.25

### Electric Heater Coil and Wiring

- ❖ Coils are an open type for rapid temperature rise to be located in the air curtain's intake directly in the air stream
- ❖ Manual reset thermal overload protection provided
- ❖ Controls internally mounted, prewired ready for power connection and accessible through the intake or top access panels
- ❖ 3/4" knockouts are provided on the top and ends
- ❖ A heat/off/fan switch is unit mounted at the bottom and the control voltage is 24 volts
- ❖ A wall mounted thermostat is included (field wired and installed by others)

### Options and Accessories: (see Accessories Brochure)

- ❖ Adjustable time delay (1 sec to 17 min)
- ❖ Remote mounted fused or non-fused disconnects
- ❖ Hi-Lo Heat
- ❖ Heat on Demand
- ❖ Master + Slave Control Kit
- ❖ Wall and Overhead Bracket
- ❖ 1/4" Aluminum Mesh Filters
- ❖ Custom colors and finishes (304SS, 316SS)

### Sound Levels: (measured at 10' in an open field)

(25" & 36") - 49 dBA, (42") - 50 dBA, (48") - 52 dBA, (60"-96") - 53 dBA & (108"-144") - 54dBA

NOTE: MARS AIR SYSTEMS, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

EXAMPLE

LPV2 72 -1 E H G -OB



Intertek

Series: LPV2
LENGTH OF UNIT
# OF MOTORS
E = ELECTRIC HEATED
VOLTAGE CODE
WATTAGE CODE
COLOR



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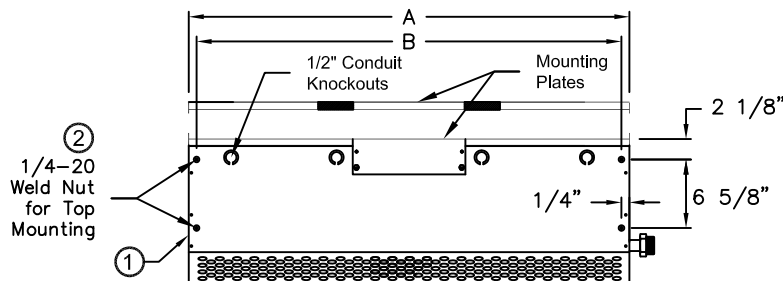
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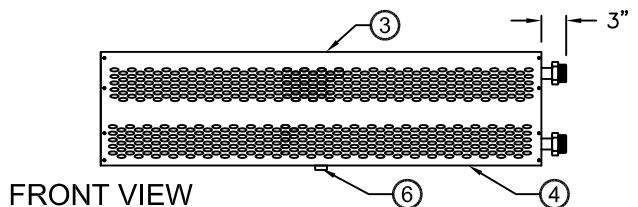
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## Hot Water/Steam Heated Drawing

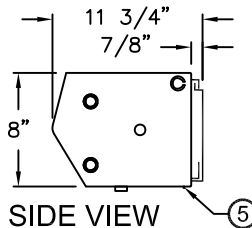
### LPV2 (LoPro2 Variable Speed) Series



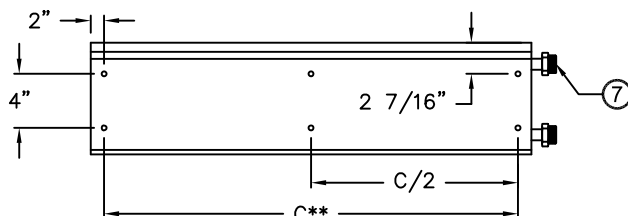
TOP VIEW



FRONT VIEW



SIDE VIEW

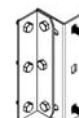


REAR VIEW

#### ⑧ Recommended Accessories



Door Limit Switches



Brackets

#### Notes:

- This product is designed to meet the National Electric Code (NEC) and is ETL listed for the US and Canada (UL 1995 and CSA 22.2).
- 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), (2) on each end.
- All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Obsidian Black color, rust preventative electrostatic polyurethane powder coating.
- Cabinet has sufficient strength for fastening to wall on both ends without intermediate support. Units greater than 72" are double units joined with a 2" mounting bracket located in the center and must be center supported.
- Unit is to be installed such that air flow is unobstructed. Air discharge nozzle containing an adjustable air directional vane with 40° sweep front to back.
- Mounted adjustable speed controller knob allows air velocity to meet a wide range of field conditions. Units greater than 72", the speed controller will be located on the right hand unit and controls both units.
- Steam units have return at bottom and supply at top of manifold. Hot water units have supply on top and return at the bottom. Units are right hand as standard. Units greater than 72" require 2 supplies and 2 returns, 1 each on both ends.
- Circuit protection as per NEC by others.
- Optional door limit switch and mounting brackets are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the mounting brackets must be installed such that the bottom of the air curtain is not below the door header.

\*- Use corresponding letters in "Electrical Data" columns to complete the model numbers.

\*\*- "C" only applies to single units up to 72" units. Dims are not applicable for units 84" and longer.

MODEL NUMBER	OVERALL LENGTH A (in)	MOUNTING WIDTH B (in)	REAR MOUNTING CENTER C (in)
LPV236-1V*-OB	36	35 1/2	32
LPV242-1V*-OB	42	41 1/2	38
LPV248-1V*-OB	48	47 1/2	44
LPV260-1V*-OB	60	59 1/2	56
LPV272-1V*-OB	72	71 1/2	68
LPV284-2V*-OB	86	85 1/2	N/A
LPV296-2V*-OB	98	97 1/2	N/A
LPV2108-2V*-OB	110	109 1/2	N/A
LPV2120-2V*-OB	122	121 1/2	N/A
LPV2144-2V*-OB	146	145 1/2	N/A

# LPV2 (LoPro2 Variable Speed) Series

Hot Water/Steam Heated

Model Lengths 36" – 144"



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## Hot Water/Steam Heated Data Sheet

### Applications: Environmental Separation (up to 8')

LPV2 (Low Profile Variable 2) Series 2	Mechanical Data						Lab Data	
Model Number	Nozzle Length (in)	Length (in)	Depth (in)	Height (in)	Motor (hp)	Weight (lbs)	Max Velocity (fpm)	Max Volume (cfm)
LPV236-1V*-OB	36	39	12	8	1/6	35	1800	900
LPV242-1V*-OB	42	45	12	8	1/6	40	1800	1050
LPV248-1V*-OB	48	51	12	8	1/6	45	1800	1200
LPV260-1V*-OB	60	63	12	8	1/6	50	1800	1500
LPV272-1V*-OB	72	75	12	8	1/6	56	1800	1800
LPV284-2V*-OB	86	92	12	8	Two 1/6	76	1800	2100
LPV296-2V*-OB	98	104	12	8	Two 1/6	86	1800	2400
LPV2108-2V*-OB	110	116	12	8	Two 1/6	88	1800	2700
LPV2120-2V*-OB	122	128	12	8	Two 1/6	95	1800	3000
LPV2144-2V*-OB	146	152	12	8	Two 1/6	110	1800	3600

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers

Note: Data above is for 60 Hz, 17% reduction in the performance data with 50 Hz.

#### Features:

##### Air Curtain

- ❖ 1/6 HP continuous duty motors
- ❖ Sleek self-contained one piece light gauge corrosion resistant paint lock metal design
- ❖ Dynamically balanced corrosion resistant aluminum crossflow wheels
- ❖ Very low profile design, 8" (H) x 8 7/8" (D)
- ❖ ETL Certified to conform to UL 507 (US) and CSA 22.2 (Canada) Standards
- ❖ Variable speed controller
- ❖ Wall mounting bracket removable for easy installation
- ❖ 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), 2 on each end
- ❖ Cabinet has sufficient strength for fastening to wall on both ends without intermediate support up to 72". (Models 84" to 144" require intermediate support in the center.)
- ❖ Adjustable air directional vane with 40° sweep front to back
- ❖ Standard color is Obsidian Black
- ❖ Rust preventative electrostatic polyurethane powder coating
- ❖ 1 year parts warranty
- ❖ Freight Included (FOB Continental USA)
- ❖ Proudly Made in the USA

##### Hot Water and Steam Coils

- ❖ Coil casings shall not be less than 16 gauge galvanized steel with tube holes formed with extruded collars.
- ❖ Fins are die formed .006" aluminum (1 row – 10 FPI)
- ❖ Coils tubes constructed of heavy wall, 5/8" OD seamless copper (Steam & Hot Water - .035")
- ❖ Coil tubes are mechanically expanded into fins to ensure a uniform pressure bond
- ❖ Manifolds shall be of heavy seamless copper construction
- ❖ All joints shall be brazed with high temperature silver brazing alloy (7%), max steam operating pressure: 30 PSI
- ❖ Fittings shall be of wrought copper or similar construction such that the entire fluid circuit shall be of compatible nonferrous materials.
- ❖ Manifold shall be fitted with 1/4" vent or drain fittings
- ❖ Supply and Return fitting is to be on the right side (specify alternate location)

#### Options and Accessories: (see Accessories Brochure)

- ❖ Wall and Overhead Bracket
- ❖ Custom colors and finishes (304SS, 316SS, Aluminum)

#### Sound Levels: (measured at 10' in an open field)

(25" & 36") - 49 dBA, (42") - 50 dBA, (48") - 52 dBA, (60"-96") - 53 dBA & (108"-144") - 54dBA

NOTE: MARS AIR SYSTEMS, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

Coil Data	Hot Water			Steam		
	Coil Code (V)	MBH	Temp Rise (°F)	Coil Code (V)	MBH	Temp Rise (°F)
LPV236-1V*-OB	1	29	30	1	49	40
LPV242-1V*-OB	1	35	30	1	58	40
LPV248-1V*-OB	1	40	30	1	67	40
LPV260-1V*-OB	1	51	30	1	85	40
LPV272-1V*-OB	1	60	30	1	102	40
LPV284-2V*-OB	1	35	30	1	58	40
LPV296-2V*-OB	1	40	30	1	67	40
LPV2108-2V*-OB	1	51	30	1	85	40
LPV2120-2V*-OB	1	51	30	1	85	40
LPV2144-2V*-OB	1	60	30	1	102	40

EAT: 70 F, EWT: 200 F, Flow rate: 5-15 GPM, Steam pressure: 5 PSI

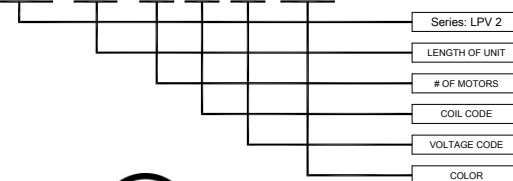
Electrical Data (FLA)	Unit Voltage (Voltage Code)	
	115v/1Ø (A)	208/230v/1Ø (D)
LPV236-1V*-OB	2.4	1.2
LPV242-1V*-OB	2.4	1.2
LPV248-1V*-OB	2.4	1.2
LPV260-1V*-OB	2.6	1.4
LPV272-1V*-OB	2.6	1.4
LPV284-2V*-OB	4.8	2.4
LPV296-2V*-OB	4.8	2.4
LPV2108-2V*-OB	5.0	2.6
LPV2120-2V*-OB	5.2	2.8
LPV2144-2V*-OB	5.2	2.8

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: For Ampacity Multiply FLA X 1.25

EXAMPLE

LPV2 72 - 1 V H - TS







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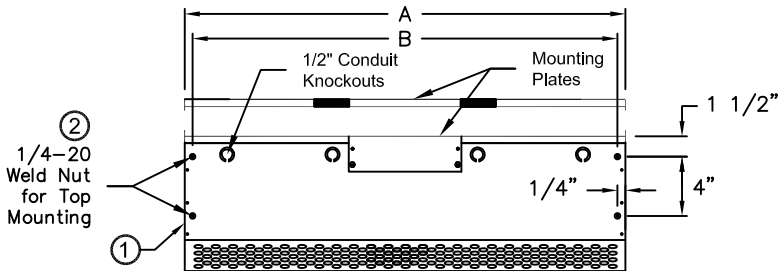
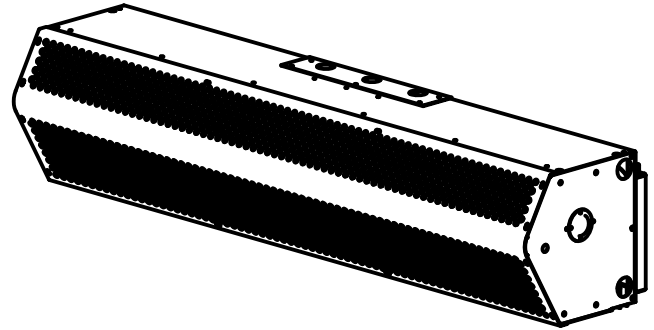
14716 S. Broadway • Gardena, CA 90248 • USA  
TEL: (310) 532-1555 • (800) 421-1266 • FAX: (310) 324-3030  
Web Site: [www.marsair.com](http://www.marsair.com) • E-mail: [info@marsair.com](mailto:info@marsair.com)

MODEL NO. LP2 Series	DRAWING NO LPN2U-F	DRAWN BY FRC	CHECKED BY	FILE NAME
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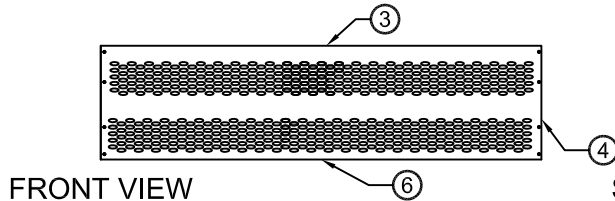
PROJECT	OPTIONS/ITEMS	
TITLE		
COMMENTS	DATE 3/31/15	PAGE
	REV. NO	

## Unheated Drawing

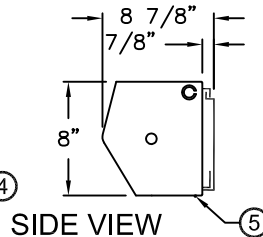
### LPN2 (LoPro2 Sanitation) Series



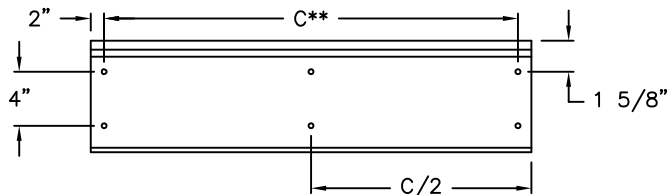
TOP VIEW



FRONT VIEW



SIDE VIEW



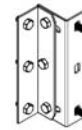
REAR VIEW



#### ⑧ Recommended Accessories



Door Limit Switches



Brackets

\*- Use corresponding letters in "Electrical Data" columns to complete the model numbers.

\*\*-"C" only applies to single units up to 72" units. Dims are not applicable for units 84" and longer.

MODEL NUMBER	OVERALL LENGTH A (in)	MOUNTING LENGTH B (in)	REAR MOUNTING CENTER C (in)
LPN225-1U*-OB	25	24 1/2	21
LPN236-1U*-OB	36	35 1/2	32
LPN242-1U*-OB	42	41 1/2	38
LPN248-1U*-OB	48	47 1/2	44
LPN260-1U*-OB	60	59 1/2	56
LPN272-1U*-OB	72	71 1/2	68
LPN284-2U*-OB	86	85 1/2	N/A
LPN296-2U*-OB	98	97 1/2	N/A
LPN2108-2U*-OB	110	109 1/2	N/A
LPN2120-2U*-OB	122	121 1/2	N/A
LPN2144-2U*-OB	146	145 1/2	N/A

#### Notes:

- This product is designed to meet the National Electric Code (NEC), ETL (UL 507 and CSA 22.2) and ETL Sanitation (NSF/ANSI 37).
- 1/4" mounting holes provided for wall mounting (4) and overhead mounting (4), (2) on each end.
- All units have a self contained one piece cabinet, fire retardant and corrosion proof paint lock metal double protected with baked on Obsidian Black color, rust preventative electrostatic polyurethane powder coating.
- Cabinet has sufficient strength for fastening to wall on both ends without intermediate support. LPN225 comes with Aluminum washable filter standard.
- Unit is to be installed such that air flow is unobstructed. Air discharge nozzle containing an adjustable air directional vane with 40° sweep front to back.
- Units greater than 72" are double units joined with a 2" mounting bracket located in the center and must be center supported, field installed.
- Circuit protection as per NEC by others.
- Optional door limit switch and mounting brackets are field installed and/or wired by others. The door limit switch is to be mounted such that the air curtain turns on as door begins to open. To prevent unit damage, the mounting brackets must be installed such that the bottom of the air curtain is not below the door header.

# LPN2 (LoPro2 Sanitation) Series

Unheated

Model Lengths 25" – 144"



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## Unheated Data Sheet

### **Applications: Insect Control (up to 7')**

LPN2 (Low Profile Sanitation 2) Series 2	Mechanical Data						Lab Data	
Model Number	Nozzle Length (in)	Length (in)	Depth (in)	Height (in)	Motor (hp)	Weight (lbs)	Max Velocity (fpm)	Max Volume (cfm)
LPN225-1U*-OB	25	25	9	8	1/6	20	1800	625
LPN236-1U*-OB	36	36	9	8	1/6	32	1800	900
LPN242-1U*-OB	42	42	9	8	1/6	35	1800	1050
LPN248-1U*-OB	48	48	9	8	1/6	40	1800	1200
LPN260-1U*-OB	60	60	9	8	1/6	48	1800	1500
LPN272-1U*-OB	72	72	9	8	1/6	58	1800	1800
LPN284-2U*-OB	86	86	9	8	Two 1/6	75	1800	2100
LPN296-2U*-OB	98	98	9	8	Two 1/6	83	1800	2400
LPN2108-2U*-OB	110	110	9	8	Two 1/6	92	1800	2700
LPN2120-2U*-OB	122	122	9	8	Two 1/6	102	1800	3000
LPN2144-2U*-OB	146	146	9	8	Two 1/6	122	1800	3600

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: ETL Sanitation models available in 60 Hz only.

#### **Features:**

- ❖ 1/6 HP continuous duty motors
- ❖ Sleek self-contained one piece heavy gauge corrosion proof paint lock metal design
- ❖ Very low profile design, 8" (H) x 8 7/8" (D)
- ❖ ETL Certified to conform to ANSI/NSF 37 Standards for Service Windows up to 4' above the counter top (filters required) and for Customer Entrances up to 7'
- ❖ ETL Certified to conform to UL 507 (US) and CSA 22.2 (Canada) Standards
- ❖ Wall mounting bracket removable for easy installation
- ❖ Top mounting well nuts provided (1/4")
- ❖ Cabinet has sufficient strength for fastening to wall on both ends without intermediate support up to 72". (Models 84" to 144" require intermediate support in the center.)
- ❖ Adjustable air directional vanes with 40° sweep front to back
- ❖ Standard color is Obsidian Black
- ❖ Rust preventative electrostatic polyurethane powder coating
- ❖ 5 year parts warranty
- ❖ Freight Included (FOB Continental USA)
- ❖ Proudly Made in the USA

#### **Options and Accessories: (see Accessories Brochure)**

- ❖ Motor Control Panels
- ❖ Wall and Overhead Bracket
- ❖ Custom colors and finishes (304SS, 316SS, Aluminum)

#### **Sound Levels: (measured at 10' in an open field)**

(25" & 36") - 49 dBA, (42") - 50 dBA, (48") - 52 dBA, (60"-96") - 53 dBA & (108"-144") - 54dBA

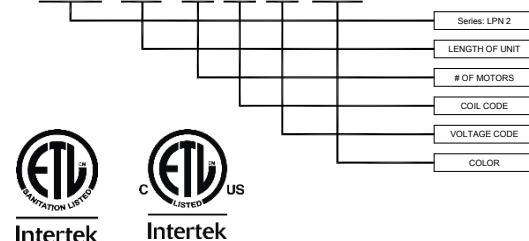
Electrical Data (FLA)	Unit Voltage (Voltage Code)	
	115v/1Ø (A)	208/230v/1Ø (D)
LPN225-1U*-OB	2.4	1.2
LPN236-1U*-OB	2.4	1.2
LPN242-1U*-OB	2.4	1.2
LPN248-1U*-OB	2.4	1.2
LPN260-1U*-OB	2.6	1.4
LPN272-1U*-OB	2.6	1.4
LPN284-2U*-OB	4.8	2.4
LPN296-2U*-OB	4.8	2.4
LPN2108-2U*-OB	5.0	2.6
LPN2120-2U*-OB	5.2	2.8
LPN2144-2U*-OB	5.2	2.8

\* - Use corresponding letters in "Electrical Data" columns to complete the model numbers.

Note: For Ampacity Multiply FLA X 1.25

EXAMPLE

LPN2 72 - 1 U A - OB



NOTE: MARS AIR SYSTEMS, LLC reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.



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Document No: LP2-IOM  
Date: 0515

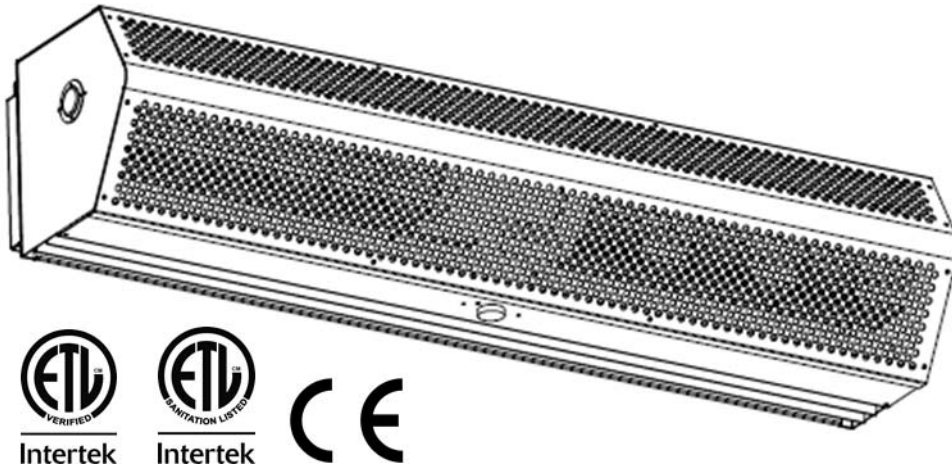
## LOW PROFILE (LPV2) VARIABLE SPEED AND LOW PROFILE (LPN2) ETL SANITATION CERTIFIED COMMERCIAL SERIES

### Installation, Operation and Maintenance Manual

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 these instructions could result in personal injury and/or property damage. Retain these instructions for future reference.

### OVERVIEW

Mars Air Curtains are designed to cover door openings, providing both temperature control/environmental separation and flying insect control, when the building's doors are opened. Typical installation heights are: LoPro Series; LPV2



### GENERAL SAFETY INFORMATION

Use this product only in the manner intended by the manufacturer. If you have any questions, contact the

(Variable Speed) models (Environmental up to 8'), LPN2 (ETL Sanitation for Customer Entrances) models (Flying Insect Control up to 7') and LPN2-F (ETL Sanitation for Counter Top/Pass Through Windows) models (Flying Insect Control up to 4' from Counter Top) All ETL Sanitation Certified Models should be mounted at the Flying Insect Control heights referenced above. The units are typically wall mounted horizontally above the door opening. They can also be suspended from the ceiling. The units are ETL Listed, Canada and US, for either an inside or outside mount and ETL Sanitation Certified. Heated units must be mounted on the inside or the protected side of the opening. The motors used in all LoPro Series are 1/6HP.

manufacturer. Only qualified personnel should install this product. Installing personnel should have a clear understanding of these instructions and should be



### WARNING

When servicing the product, motor may be hot enough to cause pain or injury. Allow motor to cool before servicing.

The LoPro Series come standard with a stamped air intake screen(s). The LPV2 models can be configured with an aluminum mesh filter(s) as an option. The LPN2 models 25" and all LPN-F models come standard with an aluminum mesh air intake filter(s) in conjunction with the punched air intake screen(s).



### WARNING

- To reduce the risk of fire, electric shock or injury to persons, observe the following.
- A. Always disconnect, lock and tag power source before installing or servicing product.
  - B. Installation work or electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
  - C. The combustion airflow needed for safe operation of fuel burning equipment in the area may be affected by the product's operation. Follow the heating equipment manufacturer's guideline and safety standards, such as those published by the National Fire Protection Agency (NFPA), the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and local code authorities.
  - D. When cutting or drilling into a wall or ceiling, be careful not to damage electrical wiring and other hidden utilities.

aware of general safety precautions. Improper installation can result in electric shock, possible injury due to coming in contact with moving parts, as well as other potential hazards.



## WARNING

Precaution should be taken in explosive atmospheres.

## RECEIVING AND INSPECTION

Upon receiving the product, check to make sure all items including switches are accounted for by referencing the Bill of Lading to ensure all items were received. Inspect each carton for shipping damage before accepting delivery. Notify the freight carrier if any damage is noticed. The carrier will make notification on the delivery receipt acknowledging any damage to the product. All damage should be noted on all copies of the Bill of Lading which is countersigned by the delivering carrier. A Carrier Inspection Report should be filled out by the carrier upon arrival and a report given to the Traffic Department. If damaged upon arrival, file a claim immediately with the carrier. Any physical damage to the unit after acceptance is not the responsibility of Mars Air Systems.

## UNPACKING

Verify that all parts, components and accessories, and the correct quantities of each have been received. If any items are missing, report shortages to Mars Air Systems directly to arrange for obtaining the missing items. Again, verify quantities received against those on the Bill of Lading only, as multiple shipments may be involved.

## INSTALLATION

### Typical Mounting – Wall or Ceiling Mounted Horizontally Above the Door Opening

1. Remove the air intake grille(s) and/or air intake filter(s) from the product and set aside. Gently remove all packaging materials, hardware and all other accessories from interior of unit prior to operating. Severe unit damage will occur if these items are not removed prior to operation.
2. Lay unit on its top with directional vanes pointing up and remove the Tek Screws from the wall mounting plate, just behind the discharge nozzle, and remove the mounting plate from the unit. (FIG. 1) Measure the mounting plate and center it over the opening. The air curtain shall be equal to or greater than the width of the opening.
3. Install the mounting plate(s) above the opening. Multiple pre-punched 7/16" mounting holes are provided for your convenience. These holes must be utilized to secure the product to the wall. All hardware is field provided by others.
4. Align the tabs on the rear of the unit with the slots provided on the wall mounting plate (FIG. 2). The bottom flange on the unit must also drop in the bottom

channel of the wall mounting plate. Replace the Tek Screws to secure the unit in place.

**Note:** If the holes provided on the bottom of the unit and the bottom of the wall mounting plate do not align, remove the unit and re-install. The holes on the bottom channel of the wall mounted plate must be on the bottom.

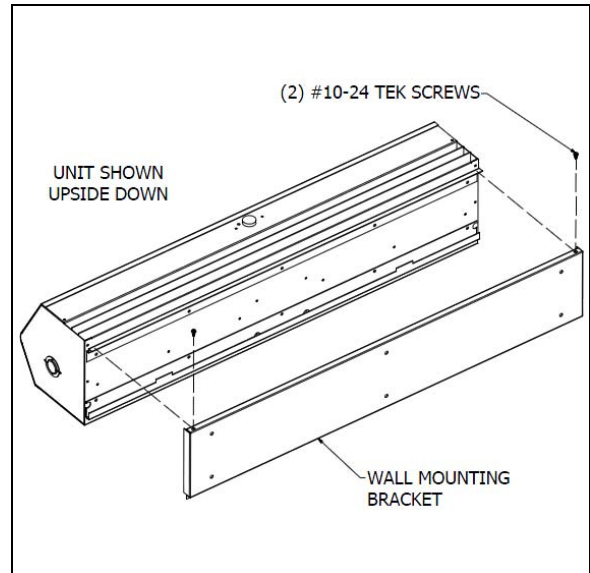


FIG. 1

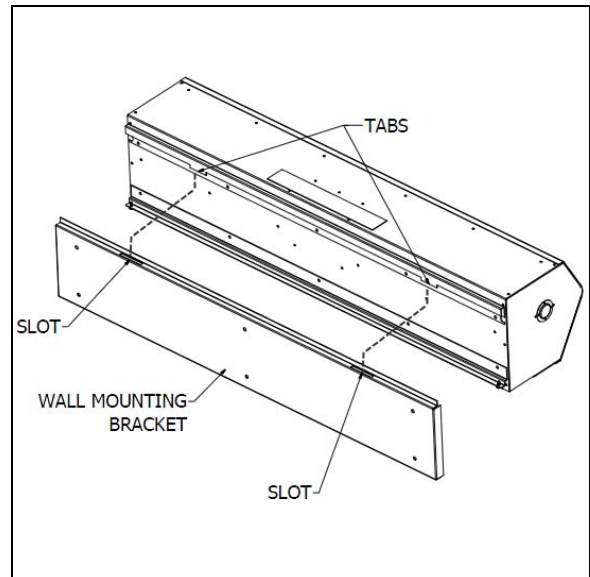


FIG. 2

5. Mount the product such that the discharge is 1" above the opening and all obstacles. (FIG. 3)

**Note:** If the product is installed higher than the recommended 1" above the opening, then it must be moved 3/8" away from the wall for every 1" that it is moved up. Any void between the wall and the product must be sealed, by others, to optimize performance.

6. Use four (4) threaded rods for overhead installation or four (4) threaded bolts for wall installation. All hardware is field provided by others. (FIG. 3)



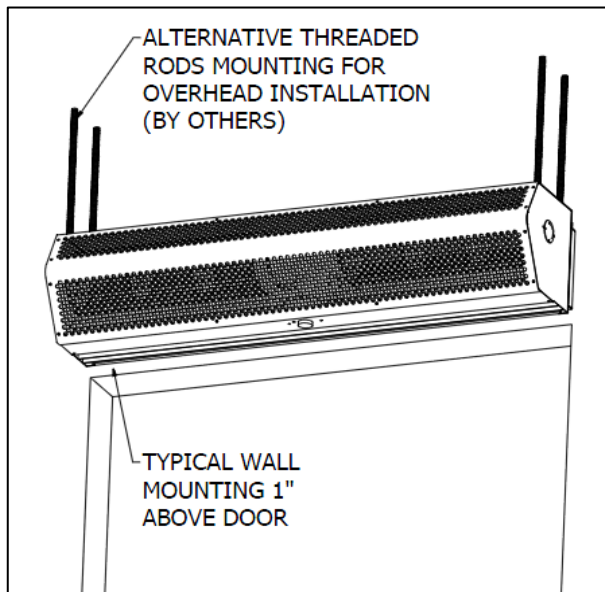


FIG. 3

7. If applicable, optional Adjustable Mounting Brackets, Side Extension Plates and Extended Wall Mounted Brackets are also available for installations over a Vertical Lift or Drum Roll-up type door. (Reference **Accessory Installation Supplement**)
8. If applicable, for tandem installation or products mounted side by side, allow no more than 6" between the two products. For overhead installation using threaded rods, the products may require a beam, by others, to span the full distance of the mounting length. (Reference **Accessory Installation Supplement**)
9. All wires must be connected internal of the unit and some knockouts are provided. However, it may be necessary to create your own knockout, as required.
10. The unit must be wired per NEC and local codes.

### Electrical Field Wiring

The unit and any optional accessories must be wired with the proper voltage to the junction box per the wiring diagram. (FIG. 4, unheated products only)

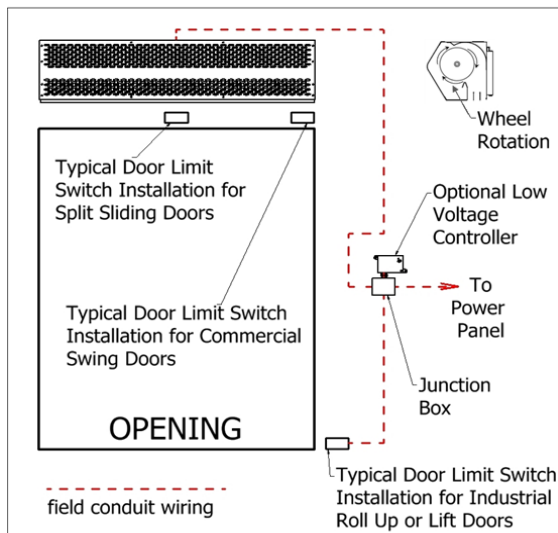


FIG. 4

### NOTE

For accessory installation, reference **Accessory Installation Supplement**.

For heated products, reference **Heated Products Supplement**.

### START-UP

This product has been assembled and tested at the factory prior to shipping. The following procedures should be performed to assure its performance. Before continuing with the start-up, it is important to recognize the safety controls furnished with the unit.



### WARNING

Prevent hazard of electrical shock. More than one disconnect switch may be required to de-energize this product.



### WARNING

The following items must all be completed by a qualified installer and checked off when completed

- A. Re-check that the product has been installed properly and is level and secure.
- B. Check all terminal screws are tight and field wiring is connected in accordance to National Electrical Code and wired per the enclosed wiring diagram. For electric heated models, ensure that the coils are secured and not touching each other on any metal surface.
- C. Verify proper voltage prior to powering the product. (See product label for reference).
- D. Check all field wired components "if supplied" are wired correctly.
- E. Check that the inlet air supply and the discharge air supply are free of obstructions.
- F. Check that all air filter(s) and/or air intake grille(s) are in place and installed properly, as originally shipped.
- G. Verify voltage to the product once more and turn power on.
- H. Regardless of whether the product is mounted on the inside or outside of the door opening, set the air directional vanes in the discharge nozzle slightly outward to approximately 10-15° towards the outside, or the wind load. (FIG. 5).

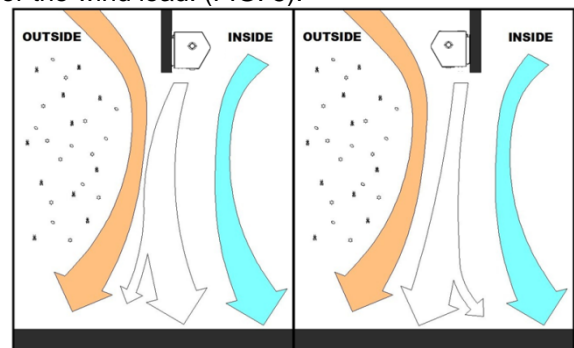


FIG. 5


- I. For products with control panels, turn the HOA (Hand-On-Auto) selector switch to "On" position and open the door to energize the product. For products without a control panel or an On/Off switch, open the door to energize the product.
- J. If heated products are installed, reference **Heated Products Supplement**.
- K. For three phase units, verify direction of rotation of blower wheels (note direction arrows on the blower wheel housing). Correct if needed by changing polarity of three phase power.
- L. **VERY IMPORTANT** Using a clamp meter, measure the amperage to each motor and ensure that they do not exceed the amperage listed on the product label.
- M. If applicable, adjust the air intake grille(s) such that the output air stream reaches the floor. For temperature control and environmental separation applications, the air stream should reach the floor with sufficient strength to create an air seal around the door opening without creating turbulent mixing of the inside and outside air. For flying insect control applications, the air stream should reach the floor with maximum strength. If after proper installation and adjustment, the product appears to be producing too little or too much air for the application, contact the manufacturer.

2. Use a damp cloth and either a warm mild soapy water solution or bio-degradable degreaser, to wipe down the exterior components of the housing.
3. To access the interior of the product, remove the air intake grille(s) and/or air intake filter(s). This is accomplished by removing the screws on the face of the air intake grille(s)/filter(s).
4. Thoroughly clean the air intake grille(s)/filter(s).
5. Thoroughly wipe down the motor, blower wheels and blower wheel housings. Be careful not to spray the motor with a water hose.
6. The motor(s) require no additional lubrication. They are permanently lubricated and feature double sealed ball bearings.
7. To re-install the product, reverse the procedures above.
8. Reconnect the power source to the product.
9. If you have any questions regarding the maintenance of the product, contact the manufacturer.

## CAUTION

The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children are not to play with the appliance.

## MAINTENANCE

 <b>WARNING</b>
<p>To reduce the risk of fire, electrical shock or injury to persons, observe the following:</p> <ol style="list-style-type: none"> <li>A. Maintenance is to be performed only by qualified personnel who are familiar with local codes and regulations and are experienced with this type of product.</li> <li>B. Before servicing or cleaning the product switch power off at service panel and lock service panel to prevent power from being switched "ON" accidentally.</li> </ol>

## DISCLAIMER

Mars reserves the right to change specifications and product design without notice. Such revisions do not entitle the buyer to corresponding changes, improvements, additions or replacements for previously purchased equipment.

Routine maintenance is required to keep this product operating at its peak performance and efficiency. Over time, the housing, air intake grille, air intake filter, blower wheels and motor(s) will accumulate a build up of dust, debris and other residue. It is imperative to keep these components clean. Failure to do so will not only lower operational efficiency and performance, but also reduce the useful life of the product. The time between cleanings depends on the application, location and daily hours of use. On average, under normal use conditions, the product should require a thorough cleaning once every six (6) months.

### To clean the product, perform the following:

1. Verify the product has been disconnected from the power source.

## TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
NO AIR BLOWING OUT OF DISCHARGE NOZZLE	<ul style="list-style-type: none"> <li>- No power being supplied to the unit from the electrical power source</li> <li>- Circuit breaker is tripped</li> <li>- Blown fuses on power supply</li> <li>- Motor overload is open or tripped</li> <li>- Motor contactor / relay defective (if applicable)</li> <li>- Failed switch</li> </ul>	<ul style="list-style-type: none"> <li>- Confirm power source / check if in on position</li> <li>- Reset circuit breaker</li> <li>- Replace fuses</li> <li>- Allow the motor to cool down; motor has auto reset internal overload; if unit is panel equipped, press reset button on overload inside panel, or replace motor overload if overload remains tripped</li> <li>- Check voltage to coil; check contacts to see if they are pulling in</li> <li>- Replace or repair limit switch</li> </ul>
MOTOR IS RUNNING BUT FANS ARE NOT SPINNING	<ul style="list-style-type: none"> <li>- Loose or broken coupling (belt drive)</li> <li>- Loose set screws on wheel hubs</li> <li>- Fan spinning inside fan housing</li> <li>- Broken fan hub</li> </ul>	<ul style="list-style-type: none"> <li>- Replace or tighten coupling</li> <li>- Tighten set screws on motor shaft flats</li> <li>- Tighten fan on shaft or replace fan</li> <li>- Replace fan wheels</li> </ul>
ELECTRICAL CONTROLS NOT WORKING WHEN DOOR IS OPEN	<ul style="list-style-type: none"> <li>- Switch is in off position</li> <li>- Door limit switch is not operating</li> </ul>	<ul style="list-style-type: none"> <li>- Turn unit's switch to the on position</li> <li>- Repair or replace door limit switch</li> </ul>
UNIT WILL NOT TURN OFF	<ul style="list-style-type: none"> <li>- Door limit switch is permanently closed or energized</li> </ul>	<ul style="list-style-type: none"> <li>- Position the door switch in a manner that turns off the unit when the door closes, and turns on the unit when the door opens. Only light pressure required.</li> </ul>
LOW AIR FLOW	<ul style="list-style-type: none"> <li>- Discharge air vanes out of adjustment</li> <li>- Obstruction on intake or discharge</li> <li>- Power leads out of polarity</li> <li>- Blower motor rotating below normal speed</li> <li>- Fan rubbing against housing</li> <li>- Blower wheels clogged with dirt</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust vanes to proper position (Refer to Start-Up Section in this manual)</li> <li>- Remove obstruction or move air curtain</li> <li>- Switch power leads to correct polarity (3 phase models only)</li> <li>- Apply proper voltage per unit requirement (see unit label) / Adjust adjustable motor speed knob (if applicable)</li> <li>- Free fan from housing</li> <li>- Clean and remove dirt from blower wheels</li> </ul>
EXCESSIVE AIR VELOCITY AT DOOR OPENING	<ul style="list-style-type: none"> <li>- Nozzle out of adjustment and not angled far out enough (BD only)</li> <li>- Air temperature too cold</li> <li>- Air stream pushing air outside of the building</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust nozzle angle to outside</li> <li>- Add auxiliary heat to overcome wind chill</li> <li>- Adjust discharge angle back into building</li> </ul>
AIR NOT HITTING THE FLOOR	<ul style="list-style-type: none"> <li>- Low air velocity</li> <li>- Obstruction in the direction of air flow</li> <li>- Negative building pressure</li> </ul>	<ul style="list-style-type: none"> <li>- Adjust vanes to proper position or check installation height (Refer to Start-Up Section in this manual)</li> <li>- Remove obstruction or move air curtain (Move out 3/8" for every 1" up from the door)</li> <li>- Provide a make-up air system to relieve negative building pressure</li> </ul>
UNEVEN AIR	<ul style="list-style-type: none"> <li>- Shaft rotating inside fan</li> <li>- One motor not functioning</li> </ul>	<ul style="list-style-type: none"> <li>- Replace fan or tighten fan on shaft</li> <li>- Replace or repair motor</li> </ul>
EXCESSIVE NOISE AND OR VIBRATION	<ul style="list-style-type: none"> <li>- Loose or broken coupling (belt drive)</li> <li>- Loose set screws on wheel hubs</li> <li>- Fan spinning inside fan housing</li> <li>- Broken fan hub</li> <li>- Bearing end caps worn</li> <li>- Damaged blower wheel</li> <li>- Bearing end caps worn</li> <li>- Balancing clips missing</li> </ul>	<ul style="list-style-type: none"> <li>- Replace or tighten coupling</li> <li>- Tighten set screws on motor shaft flats</li> <li>- Tighten fan on shaft or replace fan</li> <li>- Replace fan wheels</li> <li>- Replace Bearing end caps</li> <li>- Replace Blower Wheel</li> <li>- Replace Bearing end caps</li> <li>- Replace Blower Wheel</li> </ul>

## WARRANTY

Mars' warranty coverage, period, extent and limitations apply to the product only. It does not apply to labor. Mars warrants that Mars product 1) Is free from defects in materials and workmanship and 2) Conforms to Mars' published specifications. The warranty period for Mars product except heated and custom models, is a five (5) year period commencing on its date of shipment. The date on customer's invoice is the date of shipment, unless Mars or your reseller informs you and Mars otherwise. For heated and custom models, the warranty period is an eighteen (18) month period commencing the date of shipment. Mars will provide free replacement of any part that fails as a result of a defect in material or manufacturer's workmanship. Changes in operational specification parameters that are different from those provided on the original purchase order are not covered. Mars product is inspected and tested before packaging and is shipped in working condition. The warranty for Mars product only covers free-of-charge replacement of failed parts. The warranty does not cover labor and transportation expenses that may be required to provide and to install replacement parts. Because in many instances, it is impossible to determine the cause of failure, customer may be responsible for transportation charges associated with replacement of failed part. Mars does not warrant uninterrupted or error-free operation of Mars product. Under no circumstance is Mars liable for any of the following: 1) Third-party claims against you for damages; or 2) Special, incidental, or indirect damages or for any economic consequential damages (including lost profits and savings), even if Mars, its suppliers, or its reseller is informed of their possibility. The warranty does not cover repair or exchange of Mars product resulting from misuse, accident, modification, unsuitable physical or operating environment, improper maintenance and installation by customer, or failure caused by a product for which Mars is not responsible. The warranty does not cover damages caused by mishandling during transportation. The warranty is voided by removal or alteration of Mars product or parts identification labels, by improper installation of product, and resulting non-compliance to federal, state and local codes and regulations. Additionally, Mars reserves the right to void the warranty for non-payment of invoice.

**CONTACT FACTORY FOR COMPLETE PARTS  
LIST FOR ALL MODELS.**

**KEEP THIS MANUAL FOR YOUR RECORDS.**

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Date Purchased:** \_\_\_\_\_

**Dealer Purchased From:** \_\_\_\_\_



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downloadable version of this document.**



## HEATED PRODUCTS SUPPLEMENT

### NOTE

**Before proceeding, refer to the units specific IOM Manual for safety, installation and start information. Verify proper voltage to the product per local and NEC codes. Ensure proper rotation for units with three phase motors.**

### Electrically Heated Products

Electrically heated products must be mounted on the inside of the building. Electrically heated products come standard with a thermostat (provided and shipped loose, unless ordered as factory pre-mounted) and is to be field installed.

#### Note:

1. Electrically heated Low Profile and Phantom units come with internally mounted controls and are available with an optional 24 volt or 240 volt thermostat.
2. Electrically heated Standard, High Velocity and Extra Power units include a motor control panel mounted on the right-hand side of the unit, as standard, and a remote 24 volt thermostat with On/Off switch with terminals provided.
3. Electrically heated Wind Stopping and WindGuard units include an electric heater control panel mounted on the right hand side, as standard (FIG. 1). Optional motor/unit control panel available, which includes a remote 24 volt thermostat with On/Off switch with terminals provided.

The thermostat should be mounted as close to the product's discharge air flow as possible in order to best sense the discharged air temperature around the door opening. Connect proper voltage to the product per local and NEC codes. (FIG. 2)

Thermal overload protection is built into the heater coil assembly/assemblies. In the event of an overload condition, electrical power will be disconnected from the heater coil. Upon diagnosing the problem, electrical power can be re-instated to the heater coil(s) by manually resetting the thermal overload lever(s) or buttons(s) located in the unit or panel.

To operate multiple units mounted side by side, utilizing a single door switch and single thermostat, a master/slave configuration is required. (FIG. 2)

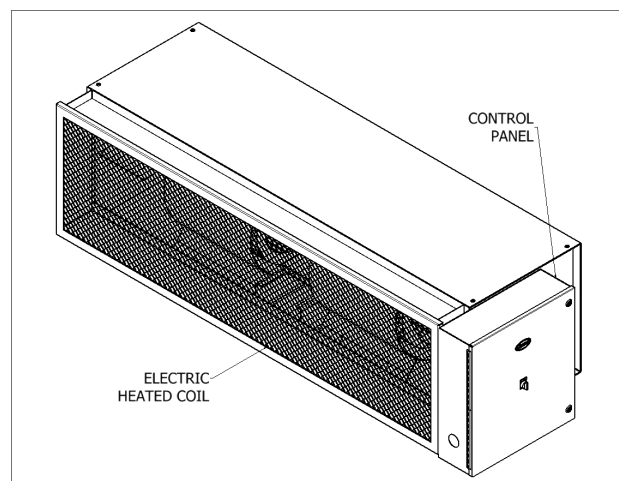


FIG. 1 (Electrically Heated WMI unit)

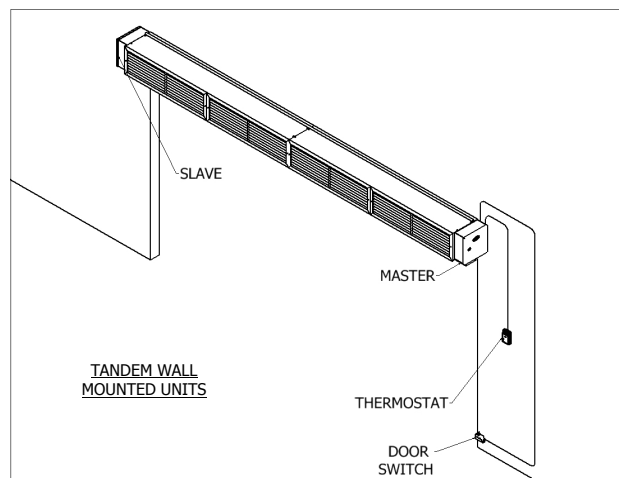


FIG. 2 (Tandem Mounted Master/Slave Units)

### Steam and Hot Water Coil Heated Products

Steam/Hot Water Coil (coil) heated products must be mounted on the inside of the building. The coil(s) for Low Profile and Phantom units are shipped internally mounted to the unit. For Standard, High Velocity and Extra Power units, the coil(s) are shipped loose and field installed. Wind

Stopping and WindGuard units are shipped with coil(s) factory mounted.

Once the coil has been secured to the cabinet, access to the motor and fan is through the removable access panels located on the top of the cabinet.

**Note:** Low Profile and Wind Stopping units require the removal of the coil to access the motor and/or fans.

All piping should be done by a licensed pipe fitter and in accordance with local codes and regulations. Connect the supply and return fittings as required. All traps and valves are sized and field installed by others. Standard coil configuration is right hand supply and left hand return. (FIGS. 3 & 4) Optional temperature controls, if ordered, are to be field installed by others.

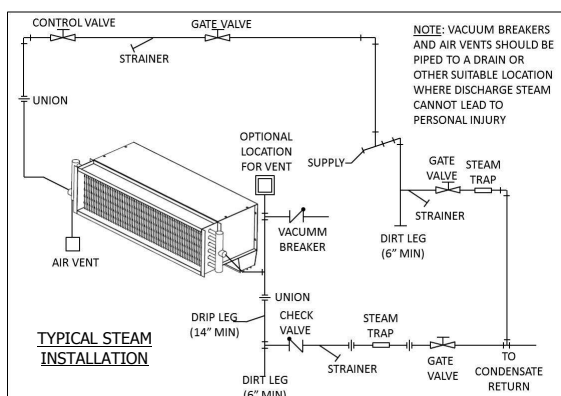


FIG. 3 (Steam Heated STD Unit)

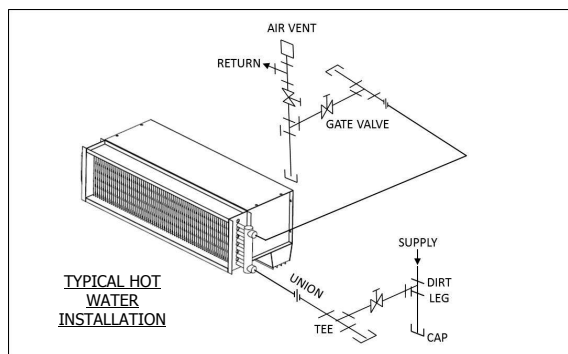


FIG. 4 (Hot Water Heated STD Unit)

## Gas Heated Products

Gas heated products must be mounted on the inside of the building. The product consists of three major components: the air curtain, transition section(s) and indirect gas fired duct furnaces(s) (FIG 5).

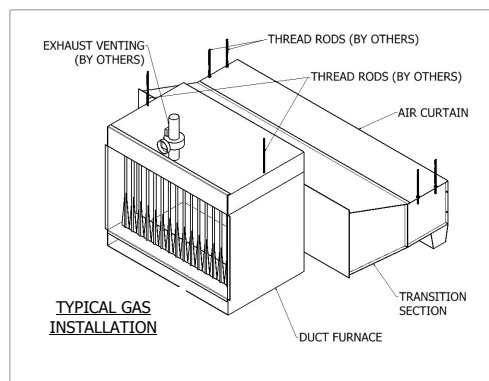


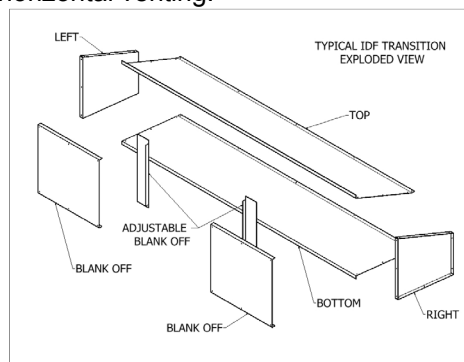
FIG. 5 (Indirect Fired Gas Heated HV

FIG. 6) installed per their supplemental instructions. (FIG. 6)

### Note:

1. Assemble the transition section(s).
2. Measure the width of the transition section(s) to determine the installation location for the duct furnace(s).
3. The duct furnace(s) are typically hung from above, with threaded rods, in order to support the weight of the duct furnaces. The duct furnace(s) must be centered and fastened to the transition(s) with the hardware provided.
4. Move the adjustable filler plates to close gaps in the transition(s) and secure the flanges to the transitions.

All gas piping and duct furnace(s) exhaust venting should be done by a licensed pipe fitter and in accordance with local codes and regulations. Power vented exhaust duct runs should not exceed 100' for horizontal venting.



In the United States, Installation must conform with local codes or, in the absence of local codes,

with Installation of the National Fuel Gas Code, ANSI Z223.1-latest edition, from the American National Standard Institute. Further reference should be made to the recommendation of your fuel supplier. In Canada, Installation must conform with local codes or, in the absence of local codes, with Installation Codes for Gas Burning Appliances and Equipment, CGA Standard CAN/CGA 1B-149. Further reference should be made to the recommendation of your fuel supplier.

## ACCESSORY INSTALLATION SUPPLEMENT

### Door Limit and Magnetic Reed Switches

1. Mars door limit and magnetic reed switches are available with NEMA 1, 4X and 7 ratings. Contact the factory for additional ratings and details. (See FIG. 1 for typical single swing, hinged door type, door limit switch installation)

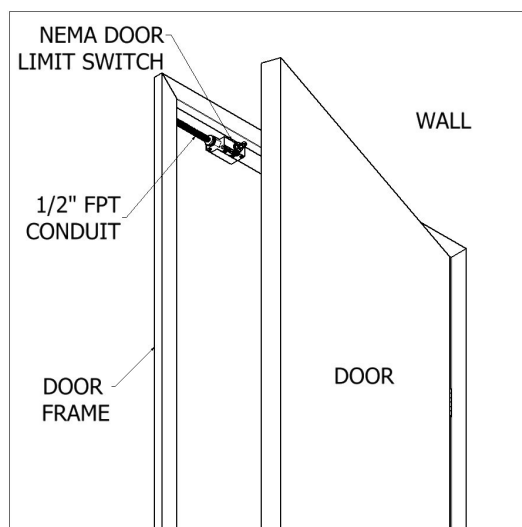


FIG. 1

2. Use light gauge materials when field fabricating brackets to activate and deactivate the door limit switch(s). (FIG. 2) Figure 2 also shows the typical installation of the combination plunger/roller type NEMA 1 door limit switch, for all non-hinged style doors.

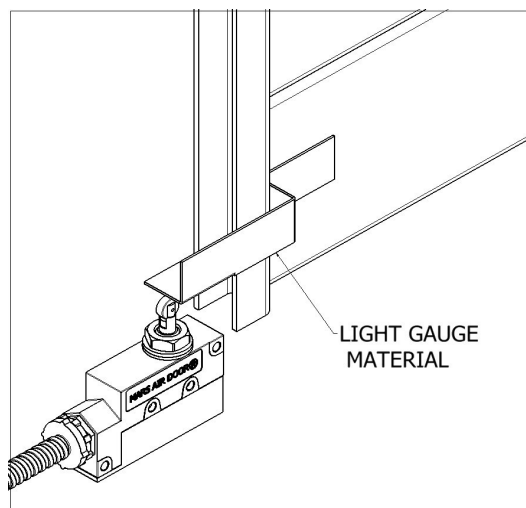


FIG. 2

3. All wiring must be per local and NEC (National Electric Code) codes.
4. Panels or controllers may be required. Refer to wiring diagram inside the control panel box.

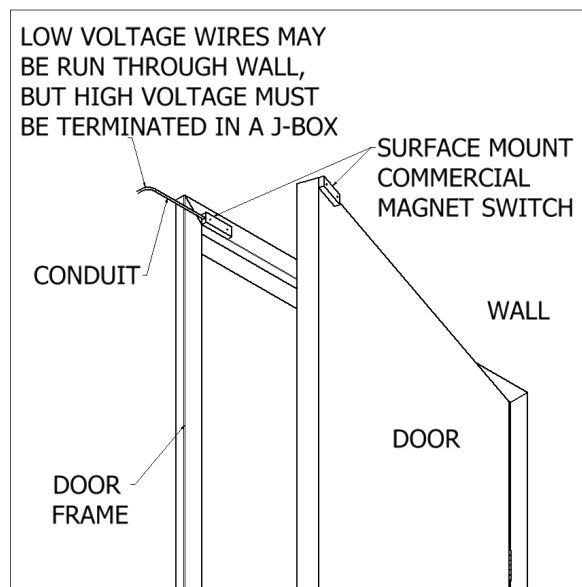


FIG. 3

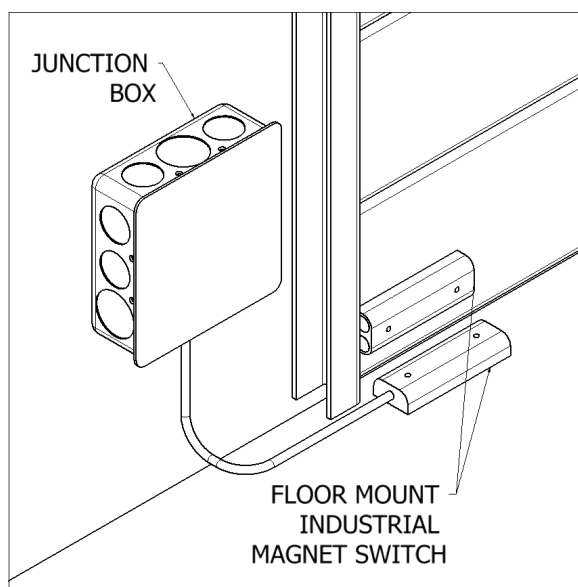


FIG. 4

## Bracket Installation

1. Side Extension Plates: For doorways wider than the air curtain, use combination of Side Extension Plates and Adjustable Mounting Brackets. (FIG. 5)

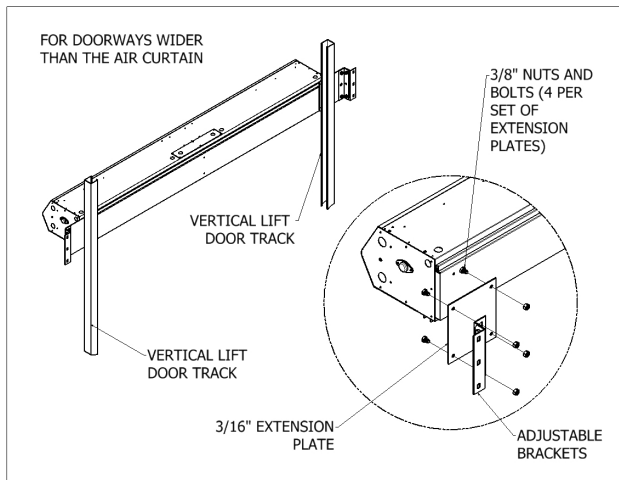


FIG. 5 (LPV Shown)

2. Adjustable Mounting Brackets: For installation of air curtain over drum-style roll-up door, use Extended Wall Mounting Brackets. (FIG. 6)

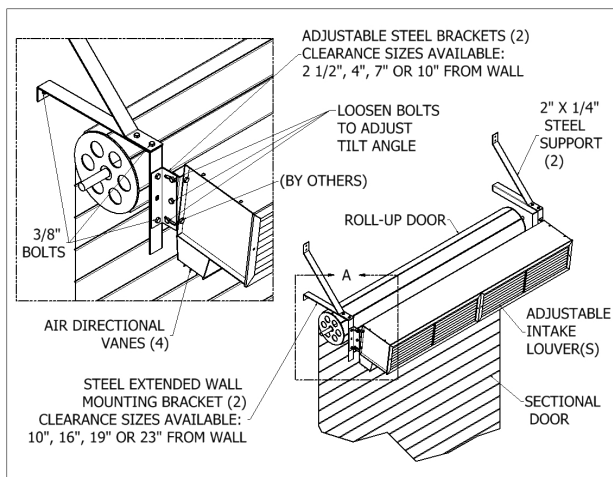


FIG. 6 (STD Shown)

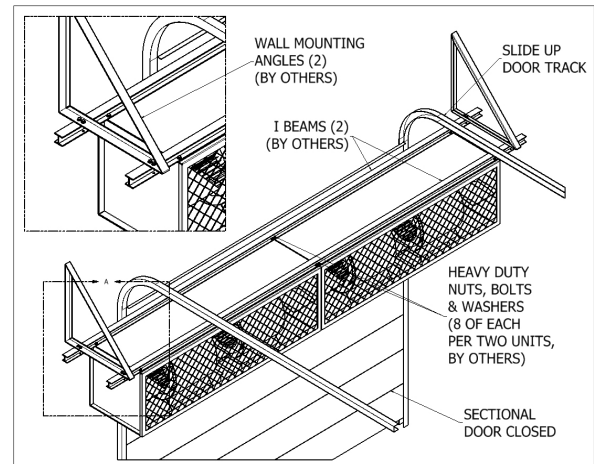


FIG. 7 (WMI/WMH Shown)

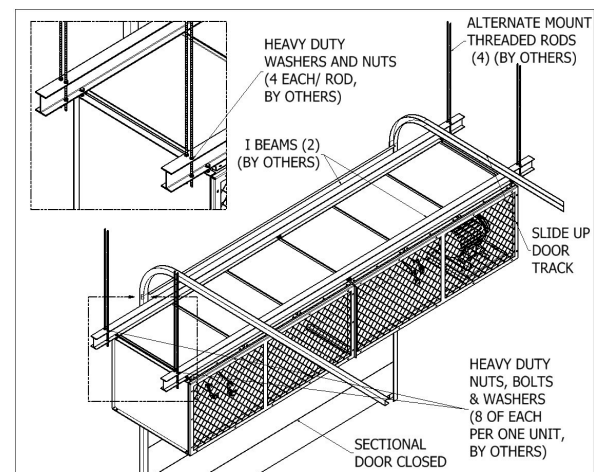


FIG. 8 (BD Shown)

3. Extended Wall Mounting: For Tandem Mounting of air curtain over sectional style door, use either wall mounting angle brackets or threaded rods.
4. Top Mounting Brackets: For overhead installation of units, use in conjunction with the threaded holes provided on top of unit.

**Note:** Angle brackets, threaded rods and I Beams are provided by others. (FIGS. 7 & 8) All optional brackets are not available for WMI/WMH and BD Series.



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