



**MANUAL – INSTALLATION**

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# **Linear Bar Grille - Heavy Duty**

**LBPH/LBMH**

**v000 – Issue Date: 06/29/21**

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**PRICE**<sup>®</sup>

# LINEAR BAR GRILLE - HEAVY DUTY

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# LINEAR BAR GRILLE - HEAVY DUTY

## PRODUCT OVERVIEW

### Overview

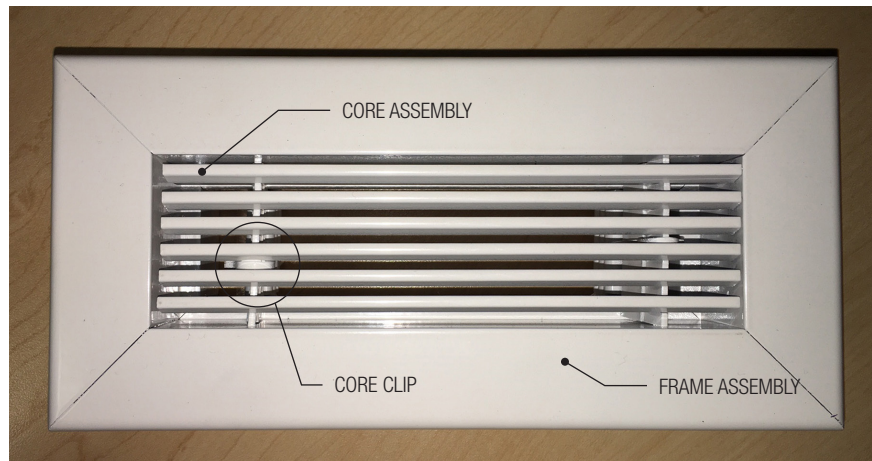
LBPH: Heavy duty extruded aluminum and pressed core construction. Recommended for use in floor (light foot traffic), sill, sidewall, and ceiling applications.

**NOTE:** Maximum width for floor applications is 12 in. structural support by others is required on wider units. Units wider than 24 in. are supplied in multiple sections with mounting channels. For oversized grilles please contact the GRD application team.

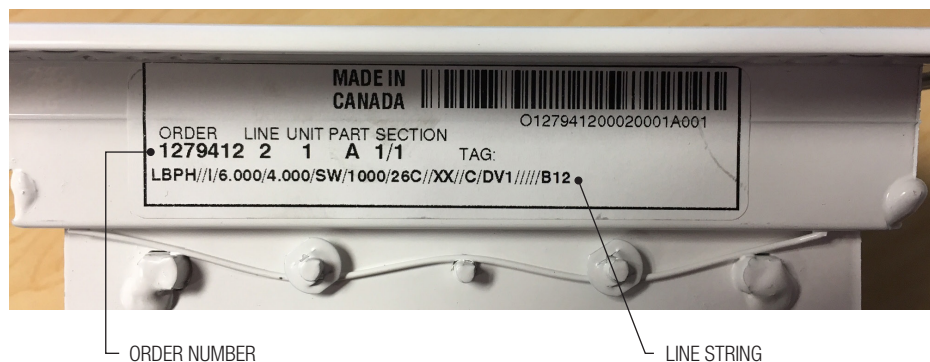
LBMH: Heavy duty extruded aluminum and mandrel tube construction. Recommended for floor (high foot traffic areas), sill, sidewall, and ceiling applications.

**NOTE:** Maximum width for floor applications is 24 in. structural support by others is required on wider units. Units wider than 48 in. are supplied in multiple sections with mounting channels. For oversized grilles please contact the GRD application team.

The grilles have a removable core assembly, a frame assembly and core clips to keep the core in place.



The linear grilles will have one (1) sticker located on the outside of the frame. For ease of troubleshooting assistance, replacement parts, and general factory assistance, it is recommended that the order number and model line string be available for reference. This information can be found on the Factory Label.



# LINEAR BAR GRILLE - HEAVY DUTY

## PRODUCT OVERVIEW

### Before You Start

Inspect all cartons and boxes for flaws and shipping damage.

If anything is discovered to be damaged, contact the shipping company and file a freight claim.

### Getting Started

**STEP 1:** Remove grille from shipping carton and inspect for any damage.

**STEP 2:** Frame out and/or cut a hole opening where the grille will be placed. Framing dimensions should be equal to the nominal size listed on the Factory Label. In the below example, the framing should have an opening of 18 in. x 12 in.

*Sample line string:*

*LBPH//18.000/12.000/Floor/1000/15A/XX//A/////B12*

*LBMH//18.000/12.000/25C/1000//XX//A/B12*

**NOTE:** Blocking/framing recommended if grille is laid into drywall.

**NOTE:** Ensure blocking/framing does not interfere with duct work.

**STEP 3:** Refer to Factory Label to determine the type of fastening for the grille. Use the following table to find the appropriate reference page for the particular fastening type. In the below example, the mounting type is Countersunk 'A' mounting.

*Sample line string:*

*LBPH//18.000/12.000/Floor/1000/15A/XX//A/////B12*

Mounting Type	Line String Sample	Page Number
Countersunk	A	3
Straight Hole	H	3
Spring Clip	B	4
Concealed	C	5
MP-DR	MP-DR	9
No Screw Hole	0	11

# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Mounting

#### Countersunk 'A' and Straight 'H' Fastening

Application: Floor, sidewall, ceiling & sill

'A' Fastening Borders: 1000, 1000S, 1250 & CPF

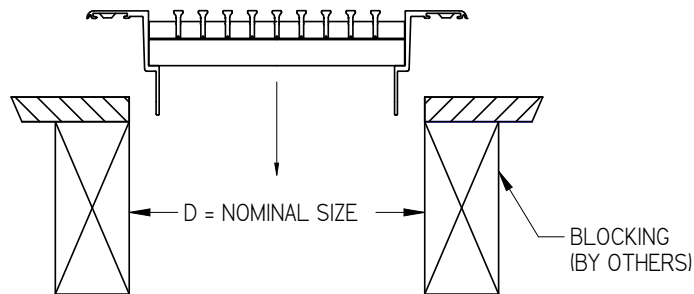
'H' Fastening Borders: 750

Sample line string:

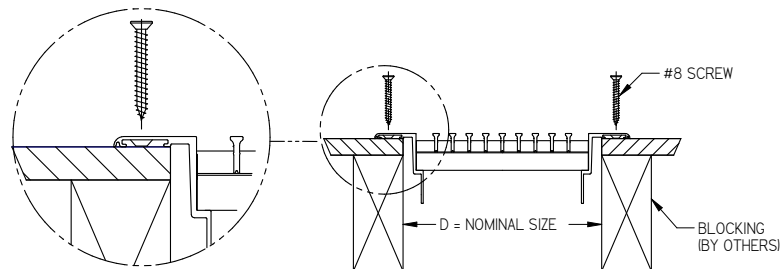
LBPH//18.000/12.000/Floor/1000/15A//XX//A/////B12

LBMH//18.000/12.000/25C/750//XX//H//B12

**STEP 1:** Once the application of the grille has been determined and the opening has been cut/framed out with the recommended blocking, place the grille in the opening.



**STEP 2:** Screw the grille into place using the #8 countersunk ('A' mounting) or straight hole ('H' mounting) screws provided by Price.



**STEP 3:** If type CPF Concealed Plaster Frame border, continue to page 9 for mud and spackle instructions.

Sample line string:

LBPH//18.000/12.000/Floor/**CPF**/15A//XX//A/////B12

# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Spring Clip 'B' Mounting

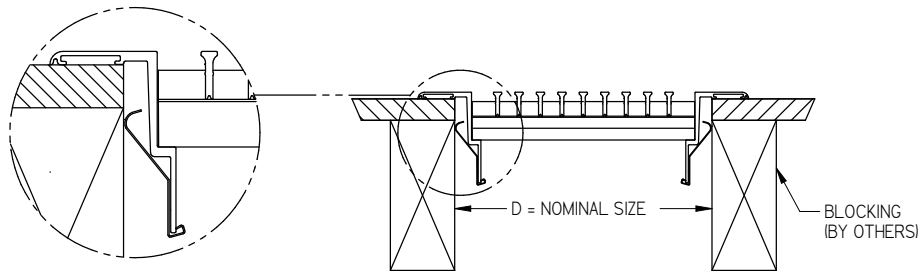
**Application:** Sill only, not to be used for ceiling or wall installation.

**Applicable Frames:** 750, 1000, 1000S & 1250

*Sample line string:*

LBP//I/18.000/12.000/Sill/1000/15A//XX//B/////B12

**STEP 1:** Once the application of the grille has been determined and the opening has been cut/framed out with the recommended blocking, lay and push grille into opening until the frame comes in contact with the sill.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Concealed 'C' Mounting

**Application:** Ceiling, sidewall, floor or sill.

**Maximum width for floor:** 12" (305)

**Maximum width for sill:** 18" (457).

### Concealed Mounting Components

#### INNER MOUNTING BRACKET ▼



#### SHEET METAL SCREW ▼



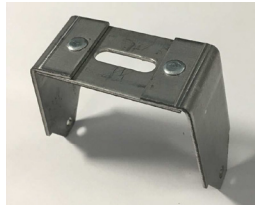
#### MOUNTING SCREW ▼



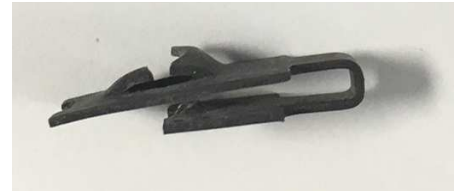
#### RUBBER WASHER ▼



#### OUTER MOUNTING BRACKET ▼



#### BLACK THREADED CLIP ▼



**STEP 1:** For core styles 15A, 16A, 26C or 27C, remove core (see removing core page 12). Although not necessary, it is recommended to remove the core of the other core styles to ensure the core does not get damaged while installing the concealed mounting brackets and to help with the installation of the concealed mounting brackets.

*Sample line string:*

LBPH//I/10.000/6.000/Sill/1000/15A/XX/C/////B12

**STEP 2:** Open the bag with the inner concealed mounting brackets; ensure that there is the appropriate amount of brackets and screws as well as enough sheet metal screws to install the brackets.

**STEP 3:** Before screwing the concealed mounting brackets into place, determine the placement of each of the brackets.

**NOTE:** Align the mounting brackets on the opposite sides of the frame as much as possible, this will help with the mounting of the outer mounting brackets.

**NOTE:** Do not place the brackets where a support bar or DV1 directional blade could interfere.

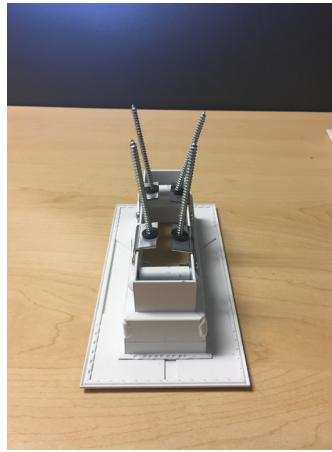
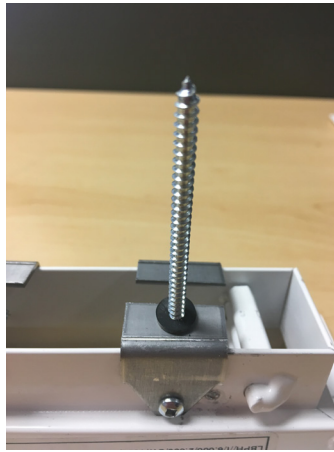
**STEP 4:** Place the grille on a flat, clean, protected surface to avoid damaging the face of the grille. Using the self-tapping screws provided by Price, screw mounting brackets into the grille's frame, again making sure to align the 90° brackets as much as possible.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

**STEP 5:** Install mounting screws through the holes of the inner mounting brackets. Retain the mounting screws in place by using the provided washers; slide the rubber washers all the way down to the base of the screw.



**STEP 6:** Place the black threaded clips on the slot(s) of the outer concealed bracket.



**STEP 7:** Place the outer brackets over the inner brackets lining up the mounting screws with the black threaded clip of the outer brackets.

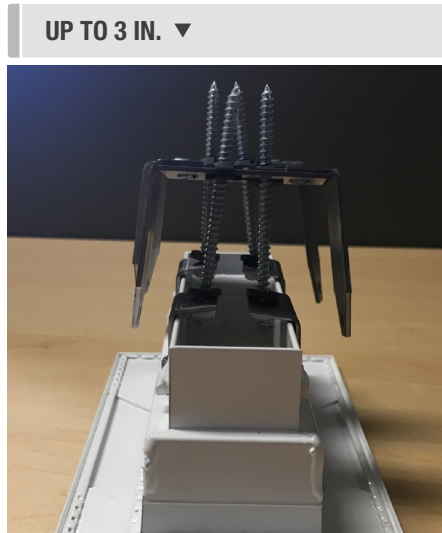




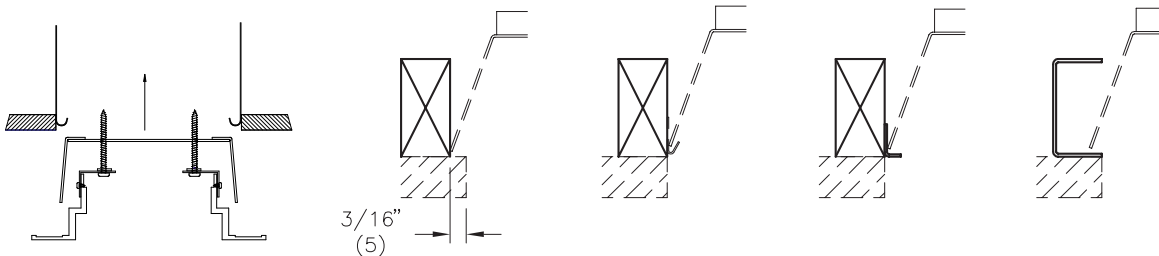
# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

**STEP 8:** For each bracket, using a screwdriver, turn the mounting screws clockwise, alternating mounting screws to ensure that the outer bracket remains as parallel to the frame as possible when installing. Keep turning the mounting screws until the outer bracket is approximately halfway down the length of the screw.



**STEP 9:** Install the grille with the concealed mounting brackets into the hemmed duct or wall opening.



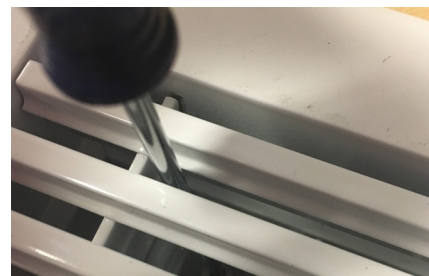
**NOTE:** If the ducting is not hemmed, a ledge may be added for installing the bracket. This may be formed by the drywall, a sheet metal hem or angle, or metal stud framing.

**NOTE:** Make sure that the outer bracket latches onto the hem of the duct before tightening the concealed mounting screws.

**STEP 10:** Tighten all of the concealed mounting screws until the frame comes into contact with the surface (border 750, 1000 and 1250) or the frame is flush with the surface (borders 125 and 187). Refer to Factory Label to determine the border type of the grille.

Sample line string:

LBPH//I/10.000/6.000/Sill/1000/15A/XX/C/////B12



# LINEAR BAR GRILLE - HEAVY DUTY

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## INSTALLATION & MOUNTING INSTRUCTIONS

**STEP 11:** Reattach core, if removed in Step 1 (see page 14 for reattaching core).

**STEP 12:** If CPF Concealed Plaster Frame border, continue to page 9 for mud and spackle instructions.

*Sample line string:*

LBP//I/18.000/12.000/Floor/CPF/15A//XX//C/////B12

# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### CPF Frame with Drywall Mounting Bracket

**Application:** Sidewall

**Applicable Frame:** CPF

*Sample line string:*

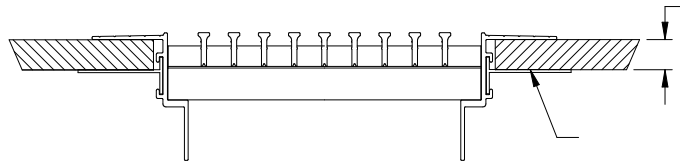
LBPH//1/18.000/12.000/SW/CPF/16A//XX//MP-DR/////B12

**STEP 1:** Thoroughly clean diffuser flanges to remove any oil, or residue from the surface. For installation with MP-DR continue to step 2A, if different type of installation continue to step 2B.

*Sample line string:*

LBPH//1/18.000/12.000/SW/CPF/16A//XX//MP-DR/////B12

**STEP 2A:** If MP-DR is selected, slide the reversible mounting brackets into the slots of the grille frame, choosing the appropriate thickness of drywall, ½ in. (13) or 5/8 in. (16). Place grille into ducting and slide drywall between the mounting bracket and the diffuser's frame, securing the grille into place as shown below.



**STEP 2B:** Install grille as specified earlier according to type of mounting.

**STEP 3:** Apply one coat of bonding agent over the entire surface of the flange, and allow bonding agent to dry as per manufacturer's instructions.

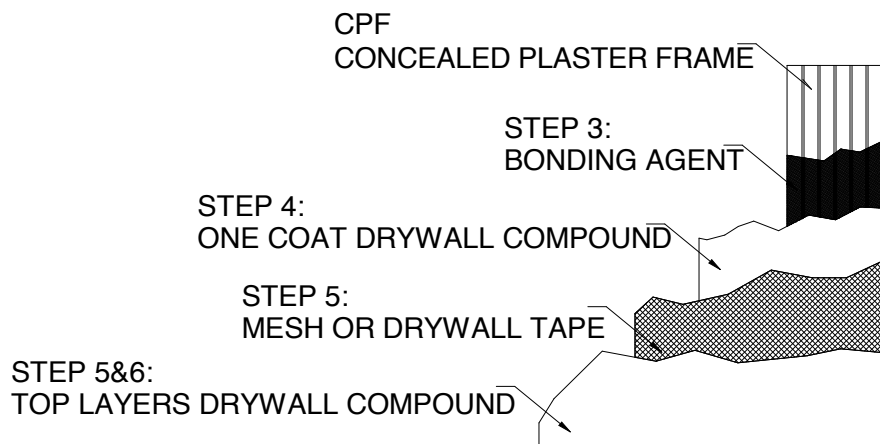
**STEP 4:** Apply one coat of drywall compound on the diffuser flanges and approximately 3" (76) onto the drywall beyond the flange.

**STEP 5:** Apply a 4 in. (102) wide mesh or paper tape to the joint compound.

**NOTE:** Be sure to smooth the mesh or paper tape out to remove any air pockets. The mesh or tape should cover the diffuser flange, but not extend onto the vertical inside edge of the diffuser frame.

**STEP 6:** Apply a second coat of drywall compound over the tape and smooth. Allow this to dry. Repeat as required.

**STEP 7:** Apply at least two coats of finishing compound. Once it has dried, sand the surface smooth, prime, and paint the surface.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

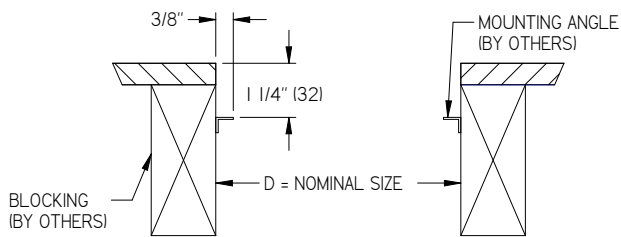
### No Screw Hole '0' with Mounting Angles

**Application:** Sill and floor

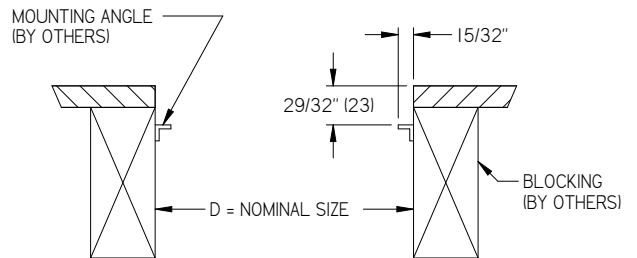
**Applicable Frame Type:** 125 & 187

**STEP 1:** Once the application of the grille has been determined and opening has been cut/framed out with the recommended blocking, install mounting angles (by others) into blocking.

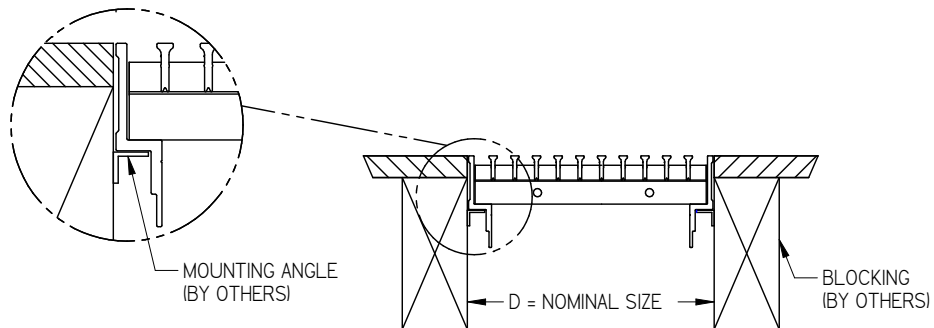
#### LBPH ▼



#### LBMH ▼



**STEP 2:** Lay the grille onto the mounting angles.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

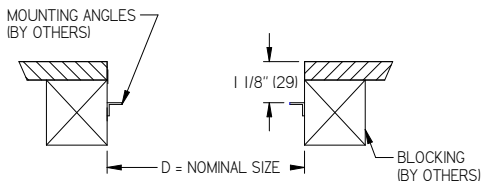
### Core Only

Application: Sill

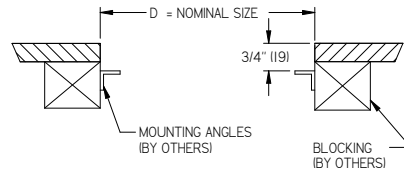
**NOTE:** Core only requires additional support by others.

**STEP 1:** Once the application of the grille has been determined and opening has been cut/framed out with the recommended blocking, install mounting angles (by others) into blocking.

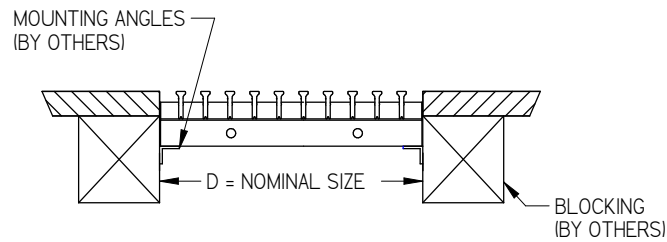
#### LBPH ▼



#### LBMH ▼



**STEP 2:** Lay core onto mounting angles.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### General Installation

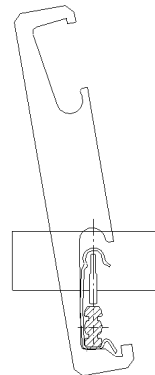
#### Removing Core

Part Name	Part Number
Core Clip Removal Tool (CCRT)	900101

**STEP 1:** Identify where all the core clips are on the grille.

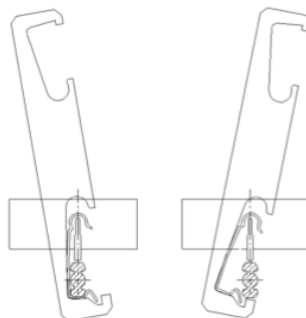


**STEP 2:** Slide core clip removal tool (CCRT) between the core bars of the grille where the first clip is located. Slide CCRT against core clip and pull up so the bottom of the CCRT opening is against the core clip.



**STEP 3:** Keeping CCRT pulled up against the core clip, use the CCRT as a lever pushing against the core's spacer bar/mandrel tube to unclip core clip from bar.

**NOTE:** If possible, leave the core clips attached to the core to ensure no core clips are lost during the removal.

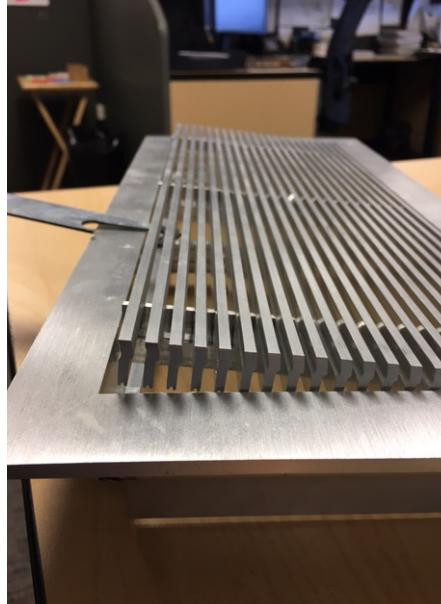


# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

**STEP 4:** Repeat steps 2 and 3 until all core clips are removed.

**STEP 5:** After all the core clips have been removed, the core can be removed. If the core is hard to remove, slide a small screw driver against the frame of the grill and use it as a lever to lift the core.



# LINEAR BAR GRILLE - HEAVY DUTY

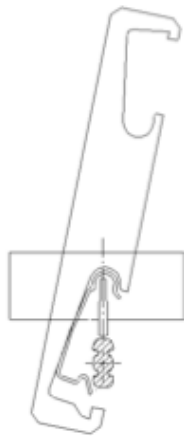
## INSTALLATION & MOUNTING INSTRUCTIONS

### Reattaching Core

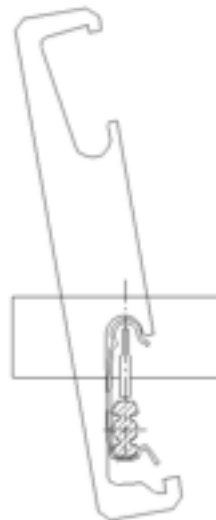
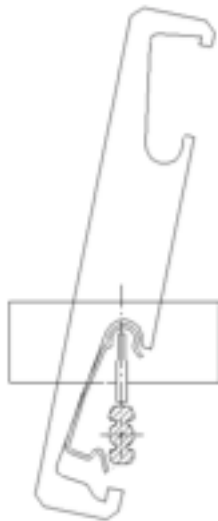
Part Name	Part Number
Core Clip Removal Tool (CCRT)	900101

**STEP 1:** Identify where all the core clips are on the grille and lay the inner core into the grille's frame ensuring that the core clips do not get caught between the spacer bar and the support bar.

**STEP 2:** Slide core clip removing tool (CCRT) between the core bars of the grille against the core clip and push down so the CCRT is against the top of the core clip as shown in the diagram below.



**STEP 3:** Keeping CCRT pushed all the way down against clip, push/rotate CCRT towards the spacer bar until the core clip engages and clips back onto the frame's support bar.



**STEP 4:** Repeat steps 2 and 3 until all core clips are reattached.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Adjusting DV1 Directional Blades

**STEP 1:** Remove the grille's core exposing the DV1 blades.



**STEP 2:** By hand, rotate each blade individually to direct airflow in the desired direction.

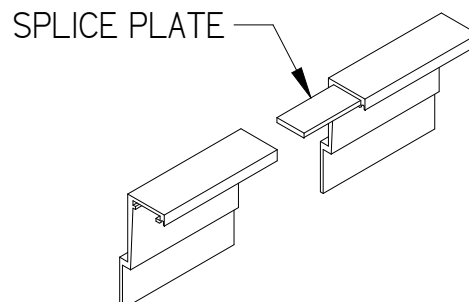


**STEP 3:** Once all blades are in their desired position, reattach the core.

### Splice Installation

**Application:** When multiple lengths of linear bar grilles are provided.

Slide the splice plates into the channels on the extruded frames. Two splice plates are required per joint.



# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Parts List

#### A & H Mounting

Part Name	Finish	Part Number
A Mounting Screws	B12 - White	900179-001
	B15 -Metallic Gray	900179-002
	B17 - Black	900179-003
	MILL - Unpainted	900179-004
H Mounting Screws	-	031948-999

#### B Mounting

Part Name	Part Number
B Spring Clip	026423-001

#### CPF Mounting

Part Name	Description	Part Number
MP-DR	Reversible Mounting Bracket	255149

#### Concealed Mounting Parts

Part Name	Description	Part Number
<b>LBMH/LBPH no Accessories</b>		
Inner Bracket		205799
Outer Bracket		205798
Hardware		205824
<b>LBMH + DV1</b>		
Inner Bracket		205799
Outer Bracket		205802
Hardware		205824
<b>LBMH + VCS2</b>		
Inner Bracket		205804
Outer Bracket		205802
Hardware		205824
<b>LBPH + VCS3/VCS2</b>		
Inner Bracket		205799
Outer Bracket		205798
Hardware		205824
<b>Hardware Parts</b>		
Mounting Screw	SMS #8-2.00 A Quad FI ZP	031936-004
Mounting Screw	SMS #8x2.5 A PH PN PL	031949-001
Threaded clips	#8 J-Nut Tinn DC-8042-8-4	032160-001
Washer	Washer NPRN #2629	033363-001
Sheet metal screws	#6-20x.375 DS RB PN PL	031011-001

# LINEAR BAR GRILLE - HEAVY DUTY

## INSTALLATION & MOUNTING INSTRUCTIONS

### Accessories

Part Name	Description	Part Number
Core Clips	Core clip for LBPH	026421 - 002
	Core clip for LBMH	026422 - 001
CCRT	Core Clip Removing Tool	900101
Splice Plate	Alignment splice plate for 750 Frame	900181 - 001
	Alignment splice plate for 1000, 1000S & 1250 Frames	900181 - 003
	Alignment splice plate for CPF Frame	900181 - 002

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