

I-TEC Accessories

Plenum Boxes, Risers, Trim Kits, and Wall Curbs

Introduction

When installing the I-TEC in a classroom or other occupied environment, sound and appearance is very important to a customer. New construction normally requires the contractor to meet architectural plans and blueprints. Existing construction often uses window openings of different sizes and sill heights for sleeve installation. Once the I-TEC is installed, it is important to make sure the unit blends into the décor of the room. When the I-TEC is running, the room needs to be as quiet as possible. Bard offers several optional accessories to help the contractor will all of these requirements.

Duct-Free Plenum Boxes

Duct-free plenum boxes offer a way to evenly distribute the conditioned supply air leaving the I-TEC throughout a classroom or other indoor environment. The plenum box is constructed using a double wall design to reduce air velocity sound levels, and also unacceptable blower noise before it reaches the classroom. Special sound dampening insulation and perf steel panels are used in box construction based on extensive sound testing results.

Bard offers three different plenum box products to meet classroom needs;

- **IPBDF Series Plenum Boxes:** The IPBDF plenum box includes special sound reduction insulation and double wall construction to offer extremely quiet operation. Louvers are constructed of aluminum with an anodized finish and offer 4-way vertical and horizontal adjustable deflectors. The deflectors allow conditioned supply air to be directed to different areas in the room.
- **IPBDFH Series Plenum Boxes:** The IPBDFH plenum box includes the features of the IPBDF, but uses a different louver style uniquely made for a premium appearance. Louvers are constructed of black powder coated steel with black linear slot. A 15 degree upward pitch on the linear slot allows air to deflect upward towards the ceiling level.
- **IPBDF**HWS Series Hot Water Plenum Boxes:** The plenum box has all the features of the IPBDF with 4-way anodized aluminum deflectors, and includes a hot water coil for hydronic heating. Optional field installed 3-way valves allow for modulating or on/off operation.



IPBDF8 Plenum Box

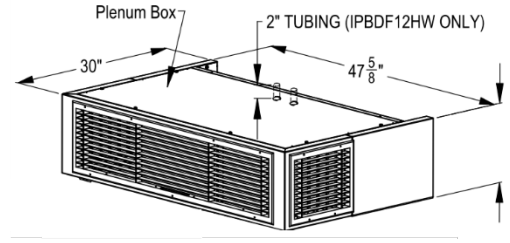


IPBDF12 Plenum Box



IPBDFH18 Plenum Box

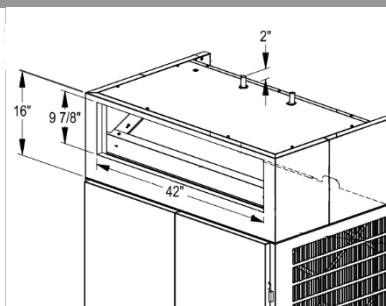
I-TEC Duct Free Plenum Box Summary



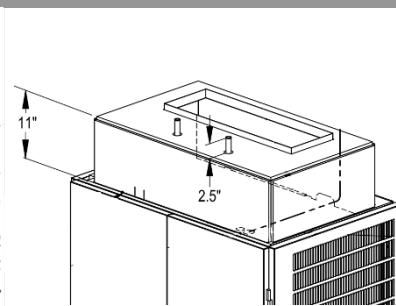
Bard #	Color	Grille Type	Height	Grille Size	Water Coil/Valves
IPBDF8-X	Beige	Anodized 4-Way Deflection	8"	(1) 42" x 6", (2) 10" x 6"	No Coil/No Valves
IPBDF8-1	White	Anodized 4-Way Deflection	8"	(1) 42" x 6", (2) 10" x 6"	No Coil/No Valves
IPBDF8-4	Gray	Anodized 4-Way Deflection	8"	(1) 42" x 6", (2) 10" x 6"	No Coil/No Valves
IPBDF12-X	Beige	Anodized 4-Way Deflection	12"	(4) 10" x 13"	No Coil/No Valves
IPBDF12-1	White	Anodized 4-Way Deflection	12"	(4) 10" x 13"	No Coil/No Valves
IPBDF12-4	Gray	Anodized 4-Way Deflection	12"	(4) 10" x 13"	No Coil/No Valves
IPBDF18-X	Beige	Anodized 4-Way Deflection	18"	(4) 10" x 13"	No Coil/No Valves
IPBDF18-1	White	Anodized 4-Way Deflection	18"	(4) 10" x 13"	No Coil/No Valves
IPBDF18-4	Gray	Anodized 4-Way Deflection	18"	(4) 10" x 13"	No Coil/No Valves
IPBDF10HW-X	Beige	Anodized 4-Way Deflection	10"	(1) 38" x 6", (2) 10" x 6"	(1) Coil/No Valves
IPBDF10HW-1	White	Anodized 4-Way Deflection	10"	(1) 38" x 6", (2) 10" x 6"	(1) Coil/No Valves
IPBDF10HW-4	Gray	Anodized 4-Way Deflection	10"	(1) 38" x 6", (2) 10" x 6"	(1) Coil/No Valves
IPBDF12HW-X	Beige	Anodized 4-Way Deflection	12"	(4) 10" x 13"	(1) Coil/No Valves
IPBDF12HW-1	White	Anodized 4-Way Deflection	12"	(4) 10" x 13"	(1) Coil/No Valves
IPBDF12HW-4	Gray	Anodized 4-Way Deflection	12"	(4) 10" x 13"	(1) Coil/No Valves
IPBDFH12-X	Beige	Black Linear Slot fixed	12"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves
IPBDFH12-1	White	Black Linear Slot fixed	12"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves
IPBDFH12-4	Gray	Black Linear Slot fixed	12"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves
IPBDFH18-X	Beige	Black Linear Slot fixed	18"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves
IPBDFH18-1	White	Black Linear Slot fixed	18"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves
IPBDFH18-4	Gray	Black Linear Slot fixed	18"	(1) 10" x 42", (2) 10" x 12"	No Coil/No Valves

I-TEC Ducted Plenum Boxes

Duct-free plenum boxes are constructed using a double wall design to reduce air velocity sound levels, and also unacceptable blower noise before it reaches the classroom. Special sound dampening insulation and perf steel panels are used in box construction based on extensive sound testing results



IPBDFH16HWS1 Plenum Box



IHWC Plenum Box

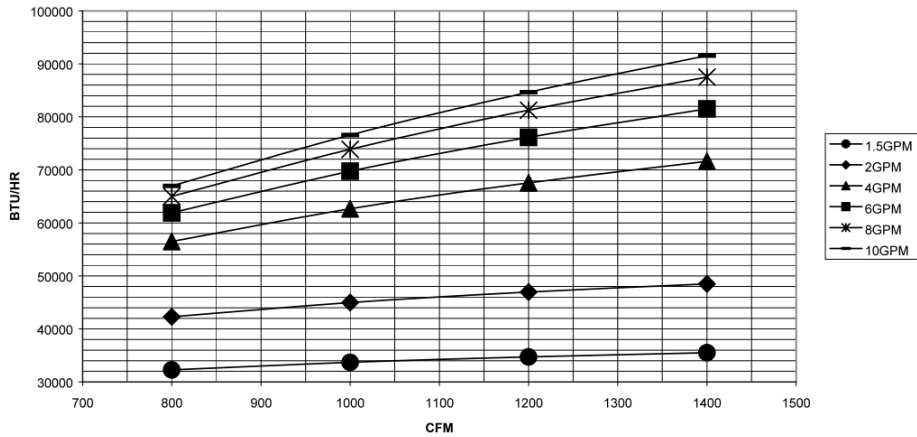
Bard offers four different ducted plenum box products to meet classroom needs;

- **IPBDFH16HWS1** Series Hot Water Plenum Boxes: The IPBDFH16 plenum box includes special sound reduction insulation and double wall construction to offer extremely quiet operation. It also includes a hot water coil for hydronic heating. Optional field installed 3-way valves allow for modulating or on/off operation. Front discharge for a 10" x 42" duct connection.
- **IPB16-4NO** Series Plenum Boxes: The plenum box is 16" in height, and allows for ductwork to be connected to the top or sides in the room or above a dropped ceiling. The IPB16 plenum box does not include duct openings, and requires the contractor to cut either rectangular or round ducts into the side or top of the box. Optional field installed 3-way valves allow for modulating or on/off operation.
- **IPB18-4NO** Series Plenum Boxes: The plenum box is 18" in height, and has the same features as the IPB16-4NO Series Plenum Box.
- **IHWC** Series Hot Water Plenum Box: The plenum box is 11" in height and has a top discharge 10" x 30" duct connection. The box has a galvanized steel finish and can be trimmed with a ICX-28 top trim kit for a painted beige, white, or gray cabinet finish. Optional field installed 3-way valves allow for modulating or on/off operation.

Bard #	Color	Application	Height	Duct Connection	Water Coil/Valves
IPBDFH16HWS1-X	Beige	Extend cabinet above ceiling height.	16"	10" x 42"	14" x 36" Water Coil/No Valves
IPBDFH16HWS1-1	White	Extend cabinet above ceiling height.	16"	10" x 42"	14" x 36" Water Coil/No Valves
IPBDFH16HWS1-4	Gray	Extend cabinet above ceiling height.	16"	10" x 42"	14" x 36" Water Coil/No Valves
IPB16-4NO	Gray	Extend cabinet above ceiling height.	16"	Field fabricated	No Coil/No Valves
IPB18-4NO	Gray	Extend cabinet above ceiling height.	18"	Field fabricated	No Coil/No Valves
IHWC	Galvanized	Adds hot water coil, can be enclosed with ICX-28	11"	10" x 30"	14" x 36" Water Coil/No Valves

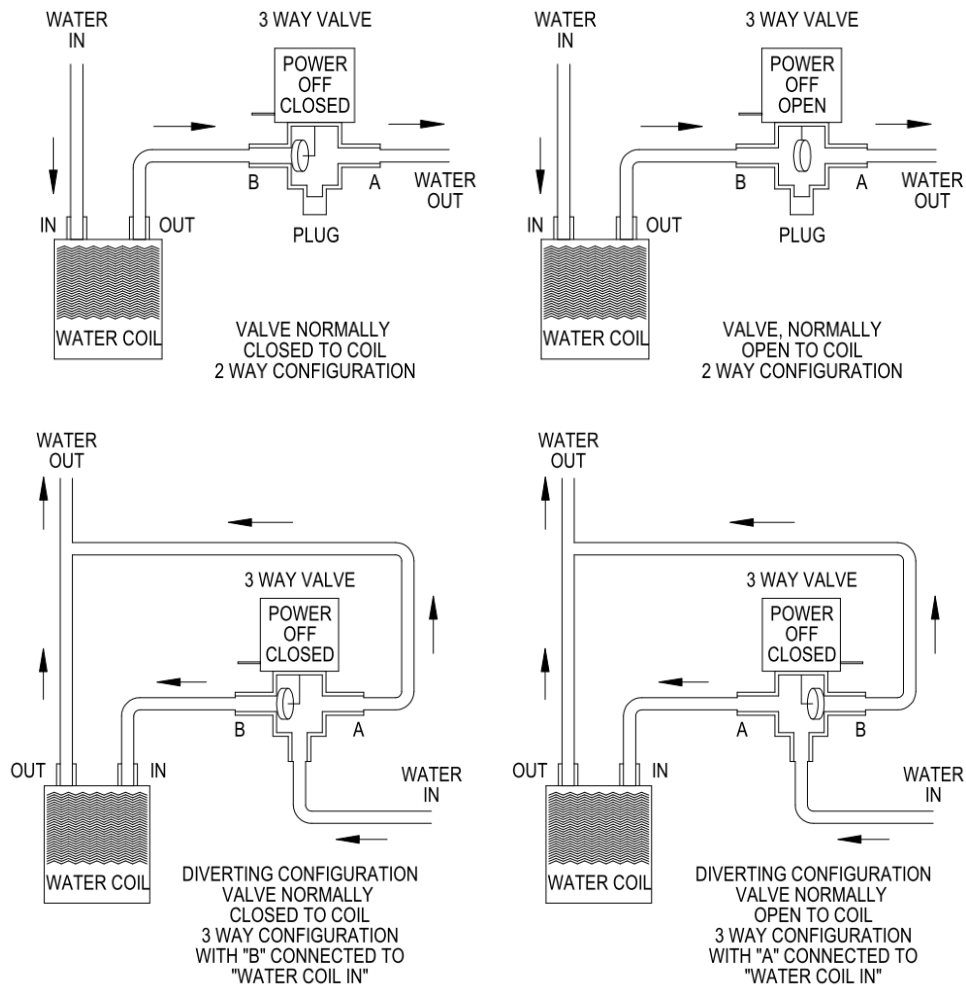
I-TEC Hot Water Plenum Performance

Heating Capacity @ 180°F Water and 70°F Return Air



NOTES:
 ① Water connections are 7/8" O.D. copper.
 ② 3-way flow valve is field installed.

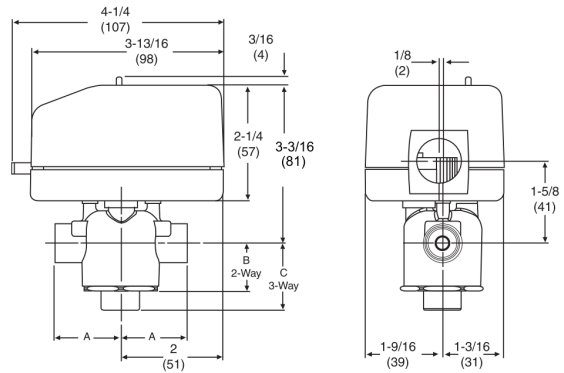
I-TEC Typical Hot Water Piping Diagrams



I-TEC Hot Water Plenum Valves

Bard offers two different 3-way water valves;

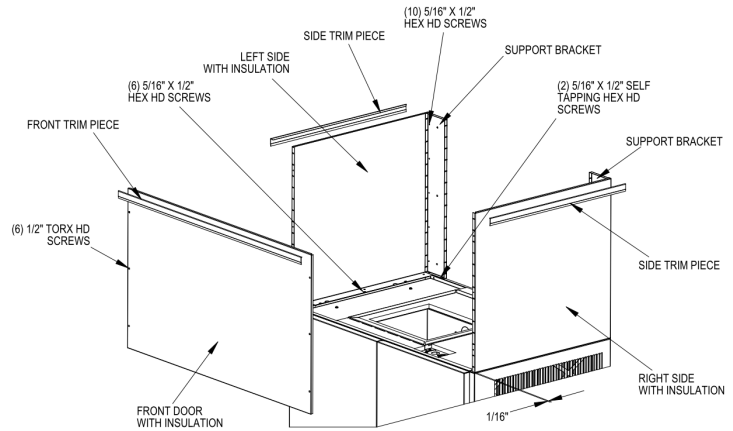
- 5650-035: A simple on/off valve with 24VAC connections that can be wired into the I-TEC low voltage terminal strip for operation when heating is activated.
- 5650-047: A modulating valve with multiple voltage selections via a jumper setting. Connections can be wired into a Building management system or modulating hot water controller for operation when heating is activated.



Bard #	Type	Voltage	Connection	Action	Actuator
5650-035	3-way valve	24VAC 50/60hz	3/4" threaded NPT	Spring Return	Pop Top
5650-047	3-way valve	0-10VDC, 0-5VDC, 5-10VDC, 4-20ma jumper selectable.	3/4" threaded NPT	Non-spring return	Pop Top

I-TEC Top Cabinet Extensions

ICX top trim kits are designed to extend the cabinet appearance flush with or above the ceiling level in a classroom or occupied area. Panels are 28" in height to extend to 10' – 2" ceilings, but can be trimmed in the field to match application needs. Panels are insulated for sound reduction. The ICX top trim kit can also be installed above a IPBDF plenum box or used to enclose the IHWC plenum.



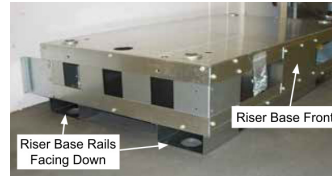
Bard #	Color	Application	Height
ICX28-X	Beige	Extend cabinet above or flush with ceiling height.	28" Max.
ICX28-1	White	Extend cabinet above or flush with ceiling height.	28" Max.
ICX28-4	Gray	Extend cabinet above or flush with ceiling height.	28" Max.

I-TEC Riser Platforms

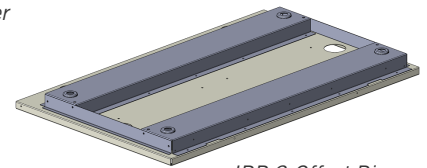
Riser platforms are typically used for installations where existing window sill heights are more than 34". By raising the unit off of the floor by the additional distance needed, the wall sleeve can use the existing window wall opening. Bard uses a base with offsets attached to increase the unit sill height up to 6". Higher sill heights require an enclosed riser platform for additional strength to support the unit. The riser platforms include trim pieces necessary to enclose the area below the unit. Trim pieces are available in multiple colors to match the I-TEC unit. Note: Multiple riser platforms cannot be stacked to gain additional unit height due to unit stability safety concerns.



Base kit with trim installed



IRP-9 Enclosed Riser

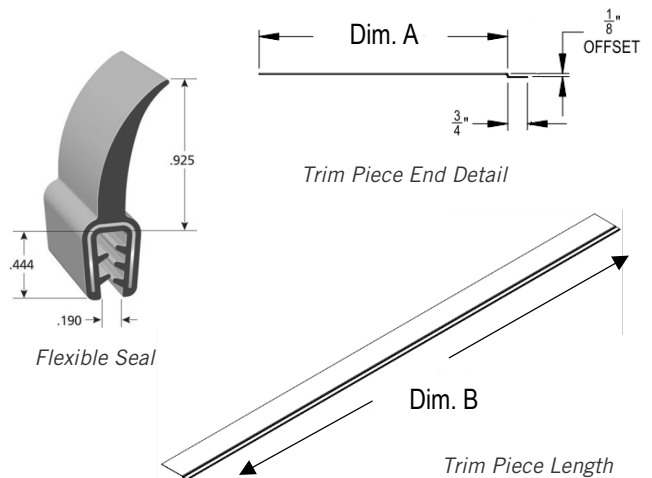


IRP-3 Offset Riser

Bard #	Color	Design	Riser Height	Alignment Dimples	Distance between floor and bottom of sleeve	Unit Height
IRP-3-X	Beige	Offset Riser Base	3"	Yes	34" – 37"	97"
IRP-3-1	White	Offset Riser Base	3"	Yes	34" – 37"	97"
IRP-3-4	Gray	Offset Riser Base	3"	Yes	34" – 37"	97"
IRP-6-X	Beige	Offset Riser Base	6"	Yes	37" – 40"	100"
IRP-6-1	White	Offset Riser Base	6"	Yes	37" – 40"	100"
IRP-6-4	Gray	Offset Riser Base	6"	Yes	37" – 40"	100"
IRP-9-X	Beige	Enclosed Riser Base	9"	Yes	40" – 43"	103"
IRP-9-1	White	Enclosed Riser Base	9"	Yes	40" – 43"	103"
IRP-9-4	Gray	Enclosed Riser Base	9"	Yes	40" – 43"	103"
IRP-11-X	Beige	Enclosed Riser Base	11"	Yes	42" – 45"	105"
IRP-11-1	White	Enclosed Riser Base	11"	Yes	42" – 45"	105"
IRP-11-4	Gray	Enclosed Riser Base	11"	Yes	42" – 45"	105"
IRP-14-X	Beige	Enclosed Riser Base	14"	Yes	45" – 48"	108"
IRP-14-1	White	Enclosed Riser Base	14"	Yes	45" – 48"	108"
IRP-14-4	Gray	Enclosed Riser Base	14"	Yes	45" – 48"	108"

I-TEC Side Trim Kits

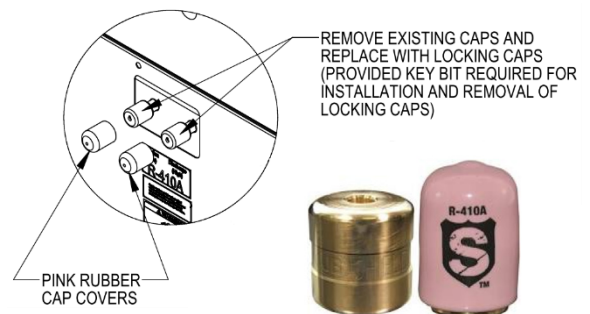
Side trim kits are used to enclose an area behind the I-TEC unit. A gap between the unit and wall may be required because of existing window sills, or wiring or drain lines ran to the ceiling level. The trim kit uses (4) pieces of steel that are assembled and attached to the unit using a high bond strength adhesive tape attached to the 1/8" offset end of the trim piece. A flexible sealing piece is attached to the opposite end of the trim piece to seal against the wall surface. The trim pieces can be cut to different widths in the field or modified to fit around existing window sills.



Bard #	Color	Application	Dim. A	Dim. B length and # of pieces	Trim Width with Seal
IST4-X	Beige	Extend cabinet to the inside wall surface.	3.5"	72", 4 pieces total	4" to 4.5"
IST4-1	White	Extend cabinet to the inside wall surface.	3.5"	72", 4 pieces total	4" to 4.5"
IST4-4	Gray	Extend cabinet to the inside wall surface.	3.5"	72", 4 pieces total	4" to 4.5"
IST4L-X	Beige	Extend cabinet to the inside wall surface	3.5'	77", 4 pieces total	4" to 4.5"
IST4L-1	White	Extend cabinet to the inside wall surface	3.5"	77", 4 pieces total	4" to 4.5"
IST4L-4	Gray	Extend cabinet to the inside wall surface	3.5"	77", 4 pieces total	4" to 4.5"
IST6-X	Beige	Extend cabinet to the inside wall surface.	5.5"	72", 4 pieces total	6" to 6.5"
IST6-1	White	Extend cabinet to the inside wall surface.	5.5"	72", 4 pieces total	6" to 6.5"
IST6-4	Gray	Extend cabinet to the inside wall surface.	5.5"	72", 4 pieces total	6" to 6.5"
IST10-X	Beige	Extend cabinet to the inside wall surface.	9.5"	72", 4 pieces total	10" to 10.5"
IST10-1	White	Extend cabinet to the inside wall surface.	9.5"	72", 4 pieces total	10" to 10.5"
IST10-4	Gray	Extend cabinet to the inside wall surface.	9.5"	72", 4 pieces total	10" to 10.5"

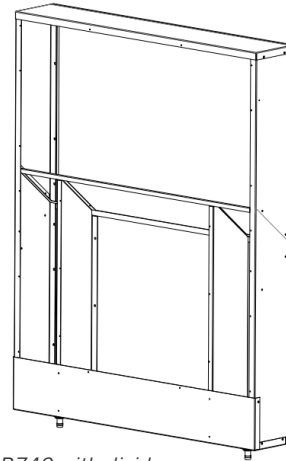
I-TEC AHCK-2A Anti-Huffing Caps

The AHCK-2A Anti-huffing cap kit is meant as a secondary precaution to deter tampering with the high and low pressure service ports behind the lockable front doors. The caps require a special key to remove, and are covered by a pink rubber cap to indicate R-410A refrigerant use.

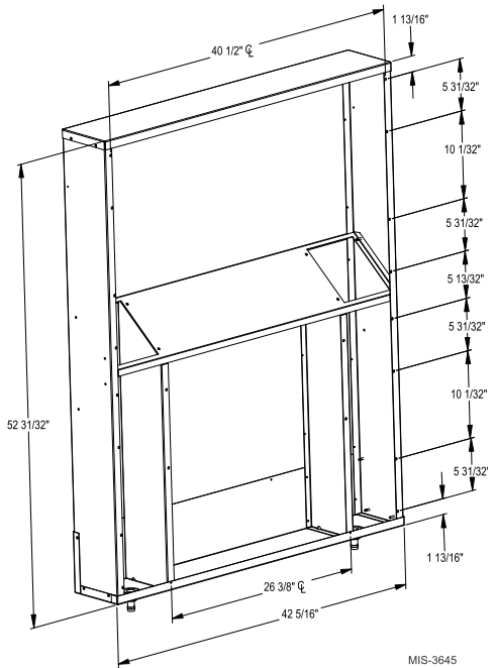


I-TEC ICURB740 Wall Curb

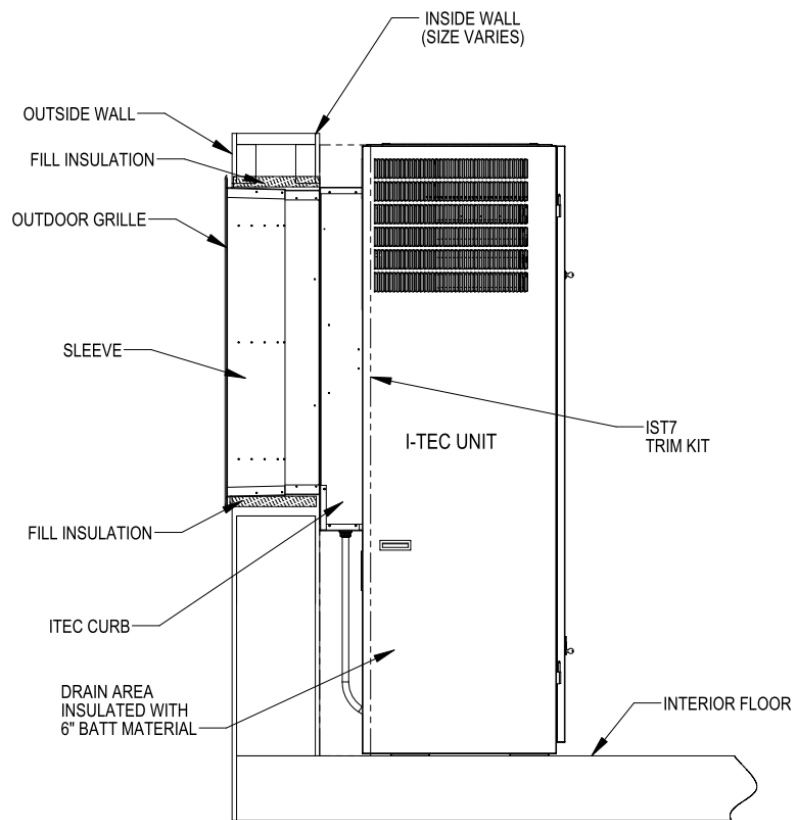
The ICURB740 allows for an IWS-A, IWS-B, or IWS-C wall sleeve to be installed at a window sill height of 40" without the need of a riser platform. Condenser air intake and exhaust paths are separated by internal dividers inside the ICURB. Drains are provided to dispose of any rain water infiltration into the curb area. The unit and ICURB can be trimmed with the IST10 side trim kit that can be cut to the depth needed for the installation. A unit height of 94" can be maintained with this accessory.



ICURB740 with dividers



ICURB740 dimensions



ICURB740 installation side view



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Due to our continuous product improvement policy, all specifications subject to change without notice.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

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Supersedes: **NEW**