

### PARTS LIST

Item	Quantity	Description
1.	1	Tie Wrap
2.	1	Light Channel
3.	1	Top Flue Baffle
4.	4	Horizontal Flue Baffle
5.	6	Receptacle Covers
6.	6	Fillister Screw #8 18 x 1/2 in.
7.	1	Permagum (Butyl Tape)
8.	2	Display Pan Close-off Bracket
9.	12	Hex-Head Screw Self-Drilling #8 18x1/2 in.
10.	1	Product Stop
11.	5	Price Tag Molding
12.	12	Wafer Head Screw 9/16 in.
13.	2 or 3	Center Flue Close-off
14.	4	Divider Bracket Lower
15.	4	Divider Bracket Upper
16.	2	Divider
17.	2	Load Limit Sticker

All equipment should be thoroughly examined for shipping damage before and during unloading.

This equipment has been carefully inspected at our factory. Any claim for loss or damage must be made to the carrier. The carrier will provide any necessary inspection reports and/or claim forms.

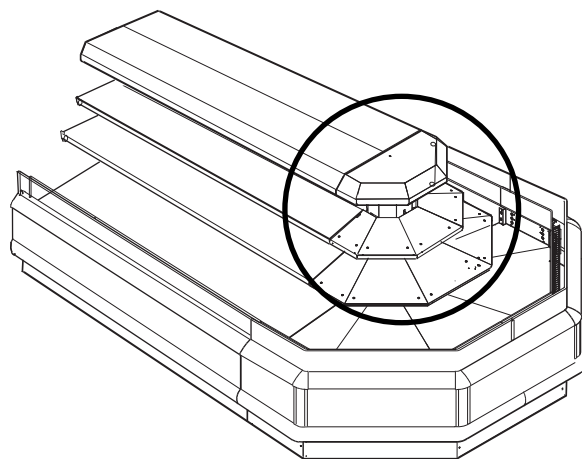
Every effort is made to ship all parts for the kit. The Hussmann Service Center can be reached by calling:

- from U.S. & Canada 1-800-922-1919 •
- from Mexico 1-800-522-1900 •



## WARNING

**Product will be degraded and may spoil if allowed to sit in a non-refrigerated area.**



Flue and Shelf Retrofit Instruction for Models:

CW2-EXGE, CW2U-90XGE and CW2U-138XGE

**P/N 0511330\_D**  
**June 2010**



## FLUE AND SHELF RETROFIT

This instruction explains the procedure for installing a center flue and shelf retrofit kit. This kit is compatible with both down-tilt shelves and horizontal shelves.

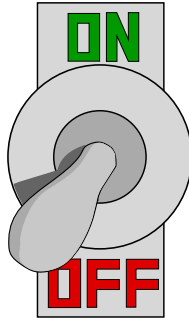


Figure 1 — Power Off

- 1** Remove product from the merchandiser, and place product in cooler.
- 2** Turn off power to the merchandiser.
- 3** Remove fluorescent lamps from end merchandiser shelves and end canopy.

**NOTE:** Always wear gloves and eye protection when handling fluorescent lamps. See Page 17 for information on fluorescent lamp disposal.

Remove the screws that secure the shelves to the shelf supports.

## **WARNING**

### — LOCK OUT / TAG OUT —

*To avoid serious injury or death from electrical shock, always disconnect the electrical power at the main disconnect when servicing or replacing any electrical component. This includes, but is not limited to, such items as doors, lights, fans, heaters, and thermostats.*

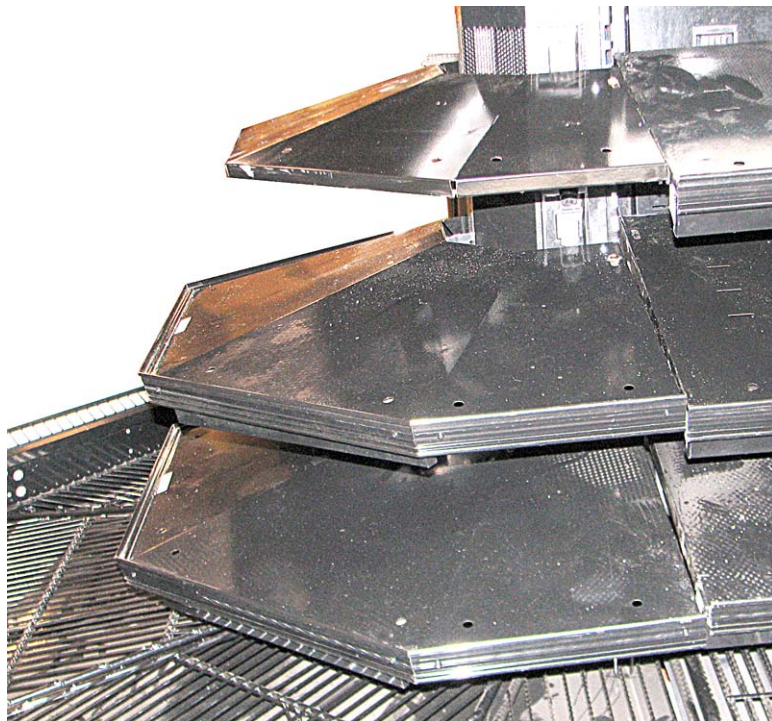
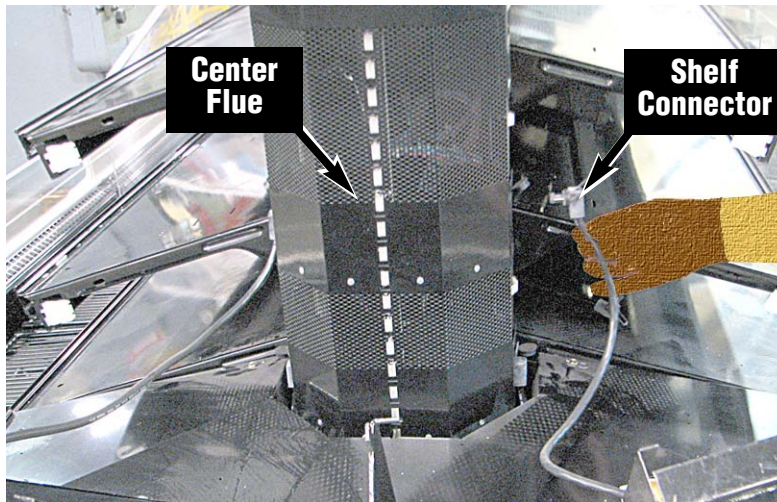


Figure 2 — Remove Product from Merchandiser  
(Three-Shelf Model Shown)



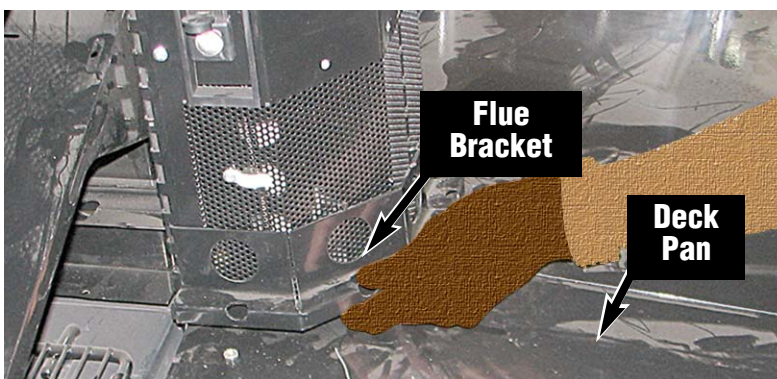
**Figure 3 — Remove Shelf Light Connectors and Shelves**

- 4** Unplug the shelf light connectors from each shelf. Remove the shelves and shelf supports starting with the top row of shelves.



**Figure 4 — Wire Racks and Deck Pans**

- 5** Remove all wire racks.



**Figure 5 — Bottom Flue Brackets**

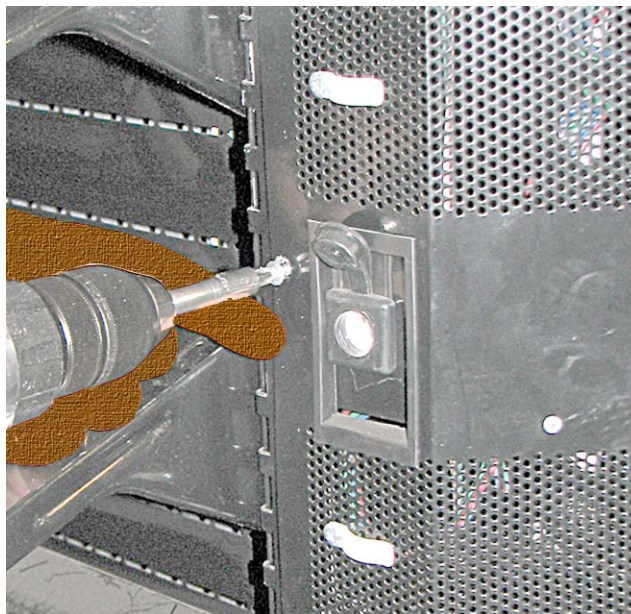
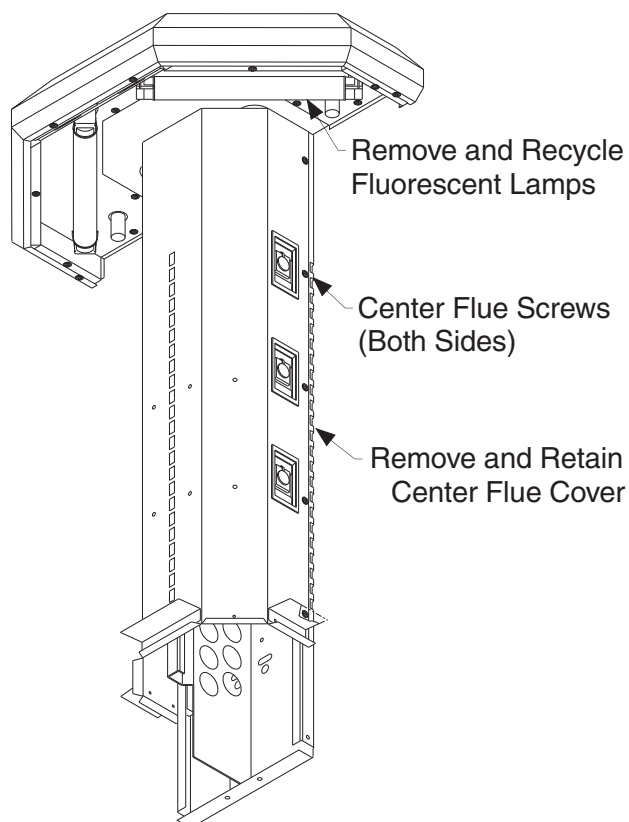
- 6** Remove bottom flue brackets and deck pans.



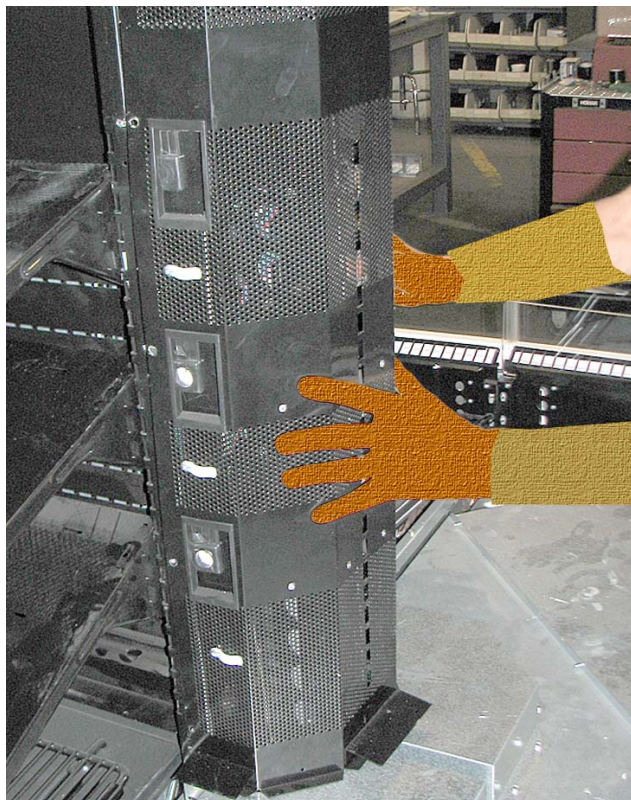
- 7** Remove the screws that attach the center flue to the upright.

Set these screws aside to be used again when replacing the center flue cover.

- 8** Carefully remove center flue cover from merchandiser and put it where it will not be damaged.



**Figure 6 — Center Flue Cover**



**Figure 7 — Remove Center Flue Cover**

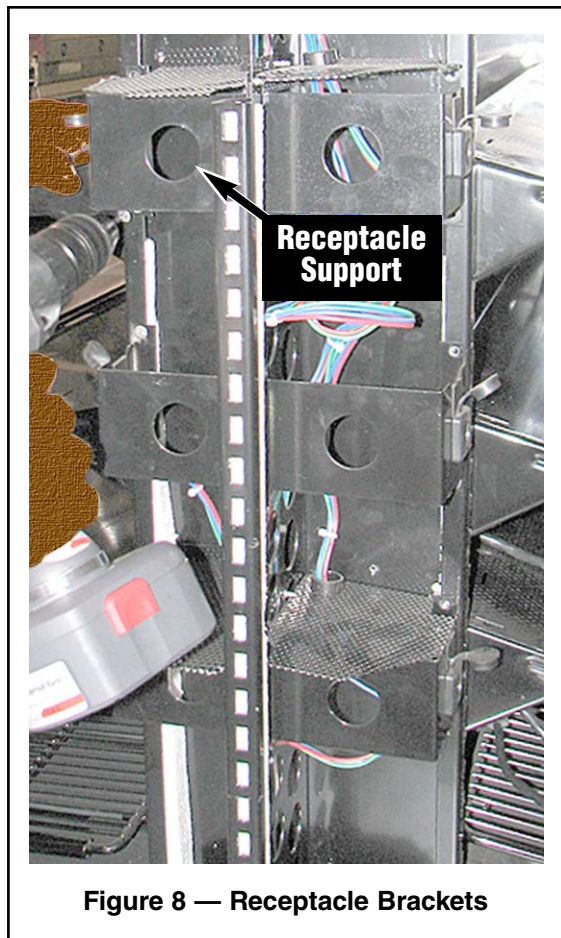


Figure 8 — Receptacle Brackets

- 9** Use a drill with a  $\frac{9}{64}$  in. drill bit to remove the rivets attaching the shelf light receptacle supports.

Remove shelf receptacle supports, and remove each shelf light receptacle from receptacle support.

- 10** Remove horizontal baffles.

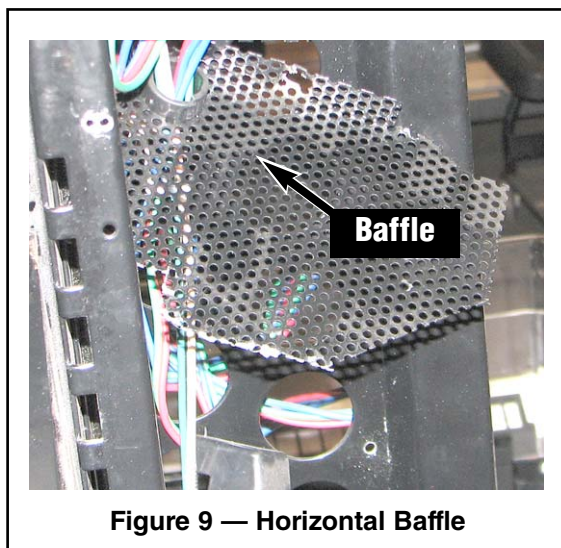
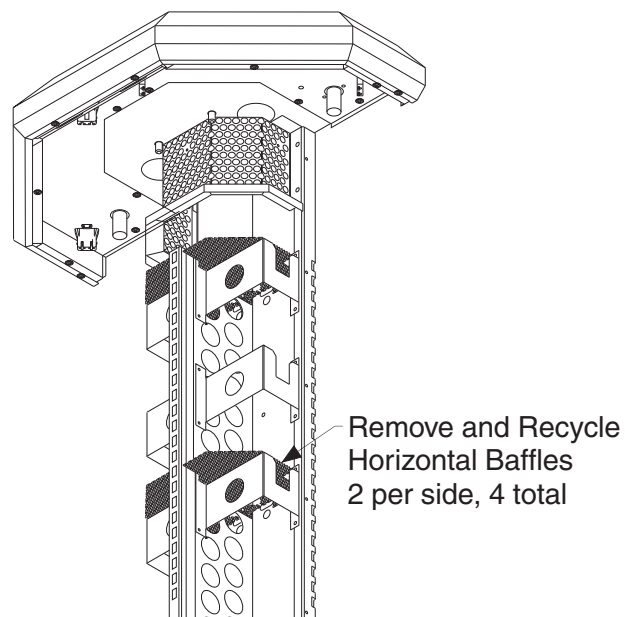


Figure 9 — Horizontal Baffle





**11** Locate the white, green and black electrical power leads that run down the center flue.

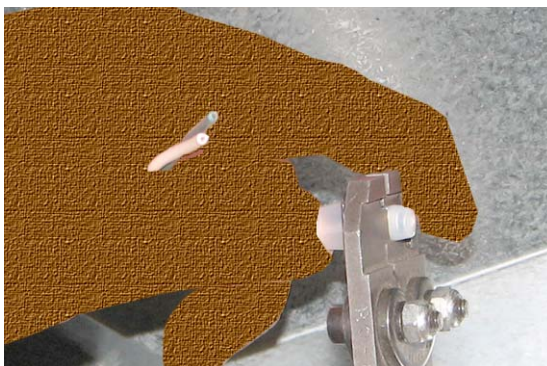
Cut these three leads 10 inches from the bottom of the center flue as shown in **Figure 10A**.

Cap the leads that run down into the merchandiser with a crimp-on connector as shown in **Figure 10B**.

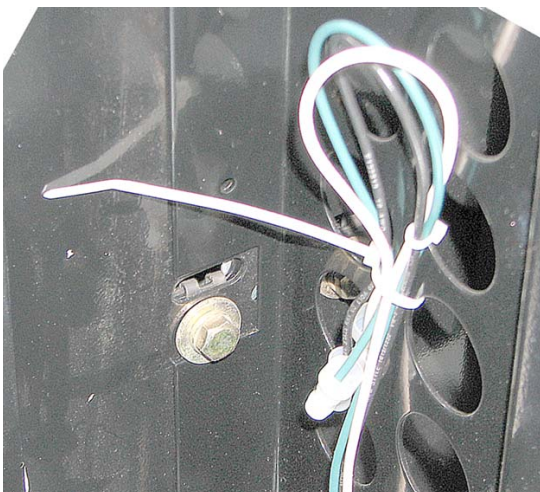
Use a **Tie Wrap — 1** to strap the leads to the center frame as shown in **Figure 10C**. Tightly secure wires, and ensure they cannot make contact with the fan blade below.



**Figure 10A — Cut Power Wires**



**Figure 10B — Cap Bottom Leads**



**Figure 10C — Secure Leads to Frame**

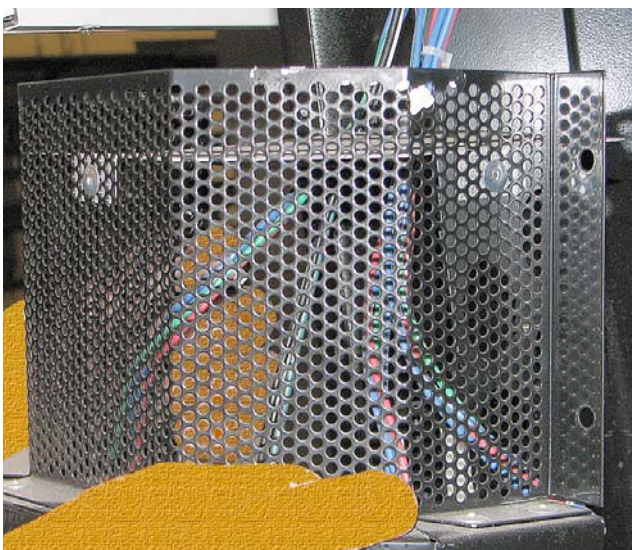


Figure 11 — Remove Top Baffle

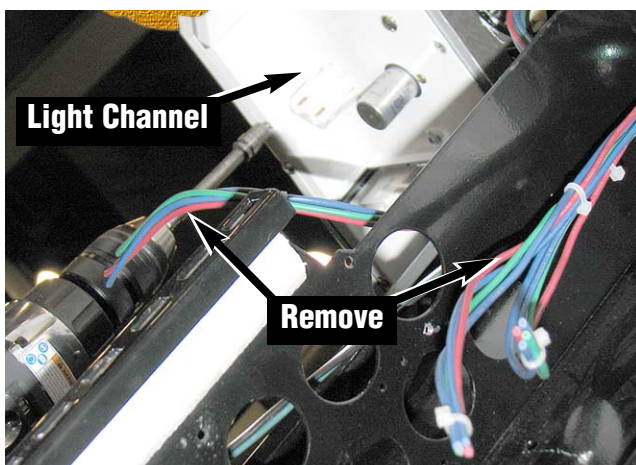
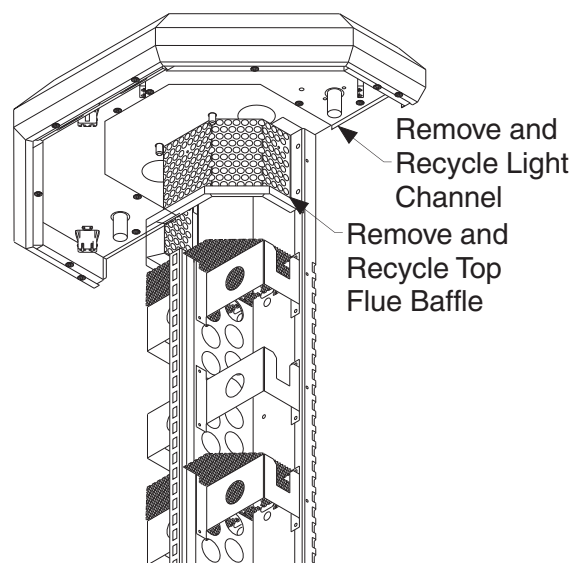


Figure 12 — Remove Light Channel and Wiring



Figure 13 — Plug Conduit with Permagem

## 12 Remove the top flue baffle from the upright.



Remove screws that attach the light channel to the canopy. Set these screws aside to be used again when installing new light channel.

Disconnect wiring from light channel and remove light channel from the canopy. Remove all canopy and shelf wiring from the light channel and upright areas of the merchandiser. Remove all ballasts from canopy area.

After all wiring has been removed, plug bushing with permagum as shown in Figure 13..



# 13

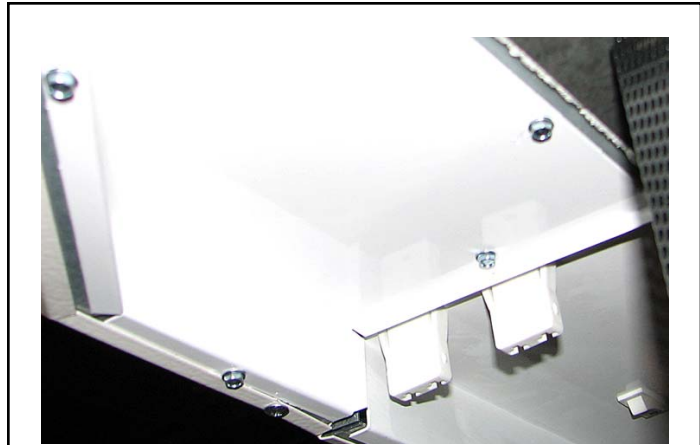
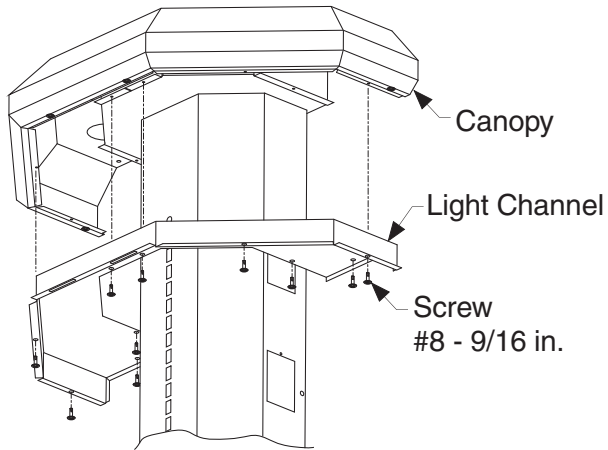
 Install **Light Channel** — 2.

Figure 14 — Install Light Channel

# 14

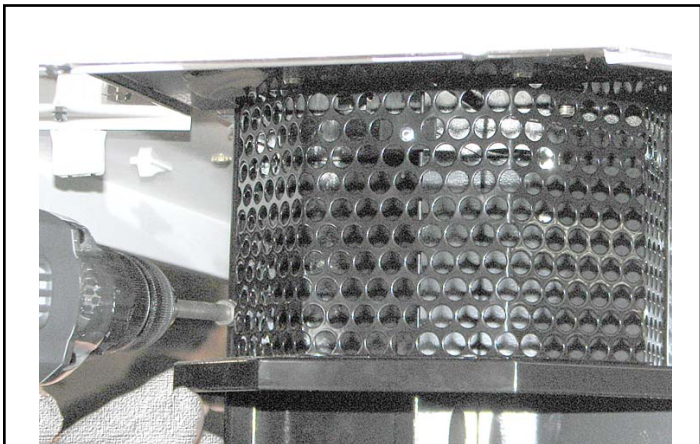
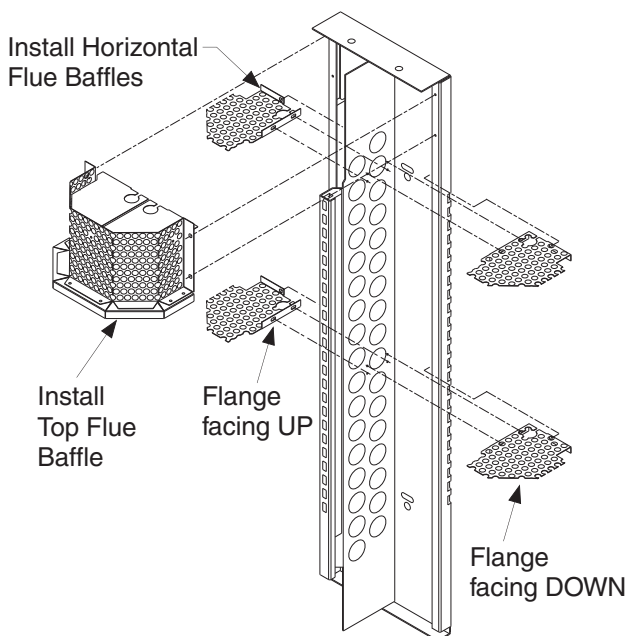
 Install **Top Flue Baffle** — 3,  
and **Horizontal Flue Baffles** — 4.

Figure 15 — Install Top Flue Baffle

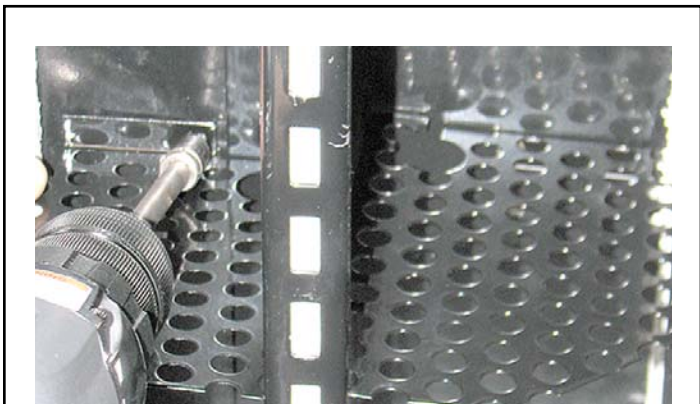


Figure 16 — Install Horizontal Flue Baffle



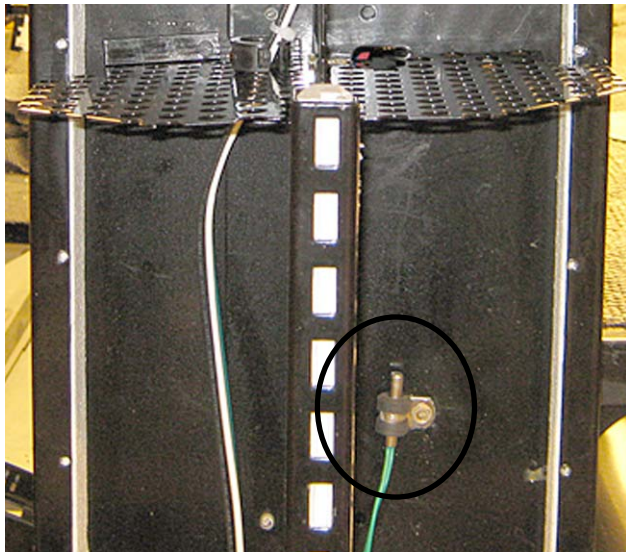


Figure 17 — Relocate Sensor

**15** Relocate sensor from parent merchandiser to end merchandiser.

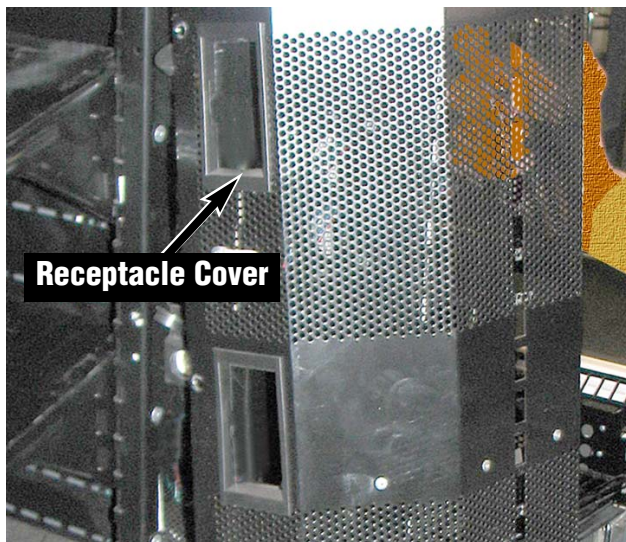
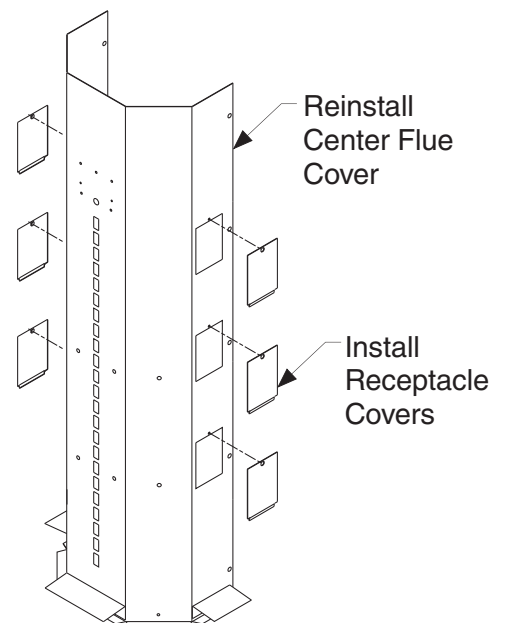


Figure 18 — Replace Center Flue

**16** Replace center flue, and secure to merchandiser with screws.

Remove receptacle covers from each side of the center flue.



- 17** Attach **Receptacle Covers — 5** to the center flue with **Fillister Screw — 6** as shown in Figure 19.

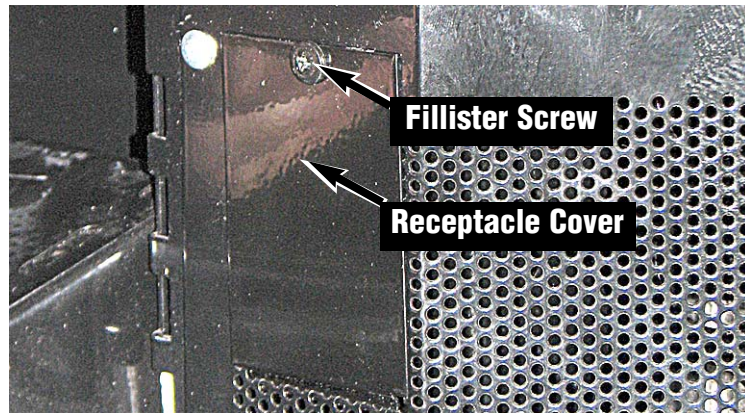


Figure 19 — Install Receptacle Cover

- 18** Use **Permagum—7** to seal air gaps between bottom of center flue and fan plenum.

Remove all debris and shavings from bottom of merchandisers.

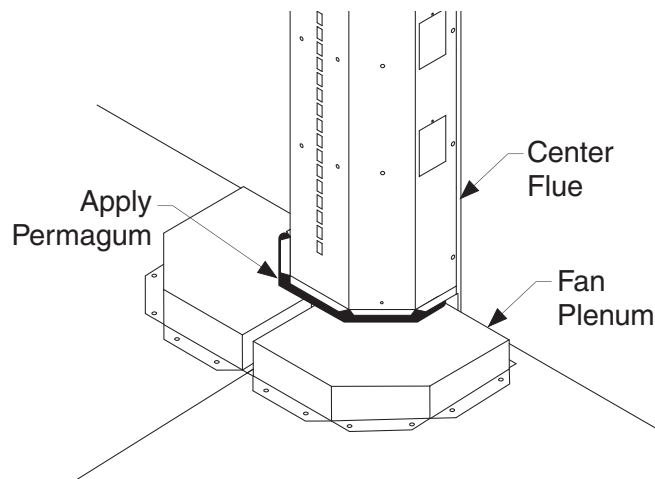


Figure 20 — Apply Permagum



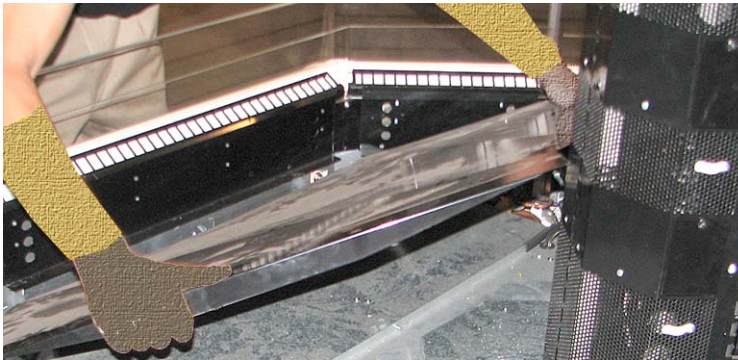


Figure 21 — Replace Deck Pans

**19** Replace the deck pans in end section.

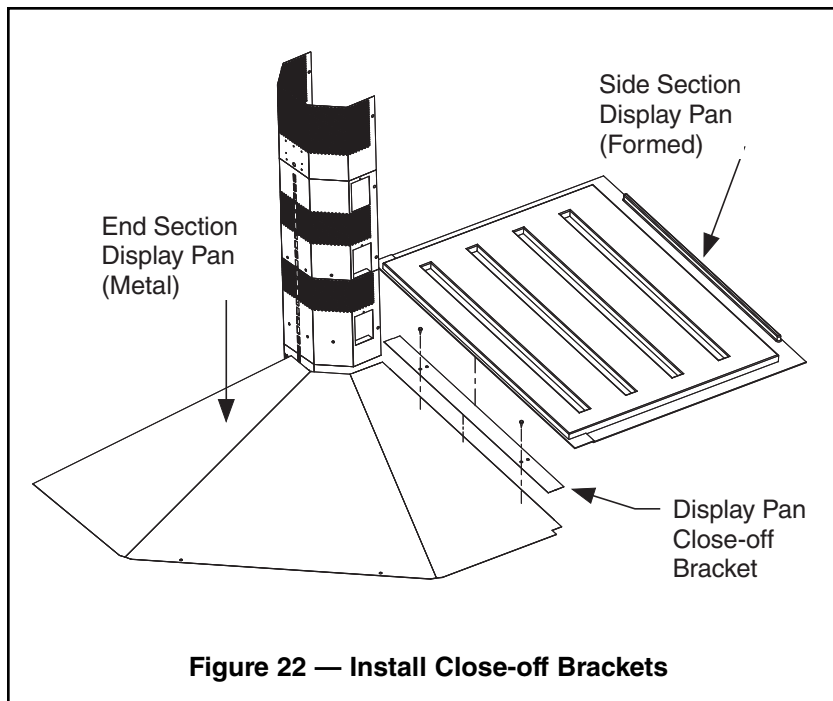


Figure 22 — Install Close-off Brackets

**20** Position a **Display Pan Close-off Bracket – 8** between the side section and end section deck pans as shown in Figure 22. Use two (2) **Self-Drilling Hex-Head Screws – 9** to attach each bracket to an end section display pan.

The side section display pan should rest on the other side of the bracket.

When properly installed between display pans, the bracket should minimize air movement around or between the pans.

**21** As shown in Figure 23A, position the bottom flue brackets in the fourth hole from the bottom which will leave two open holes below the bracket. Refer to diagrams in Figure 26A and Figure 26B.

Place front of wire racks in the lowest front position before placing back of wire rack in the flue close-off bracket.

The flaps on the back of the wire racks must be flipped to their *up* position so they rest against the flue. Do not leave them *down* resting against the rack itself. There are five flaps total — one on each wire rack.

**22** Remove fluorescent lights, and light channels from shelves.

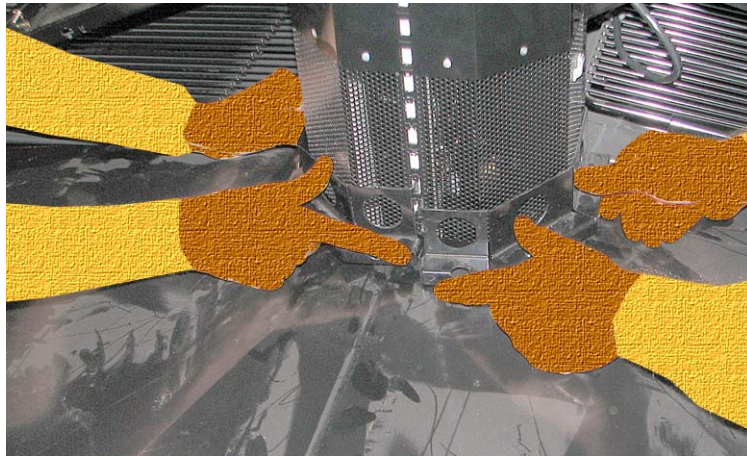


Figure 23A — Replace Bottom Flue Bracket

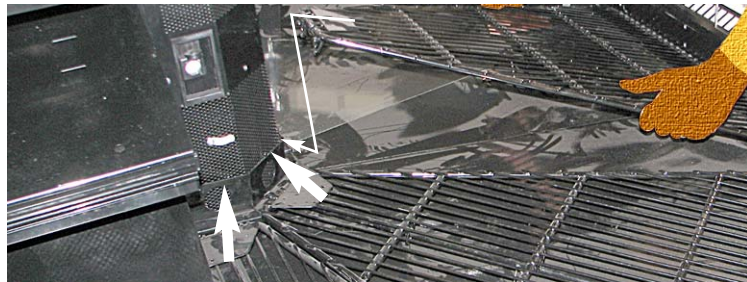


Figure 23B — Flip Flaps

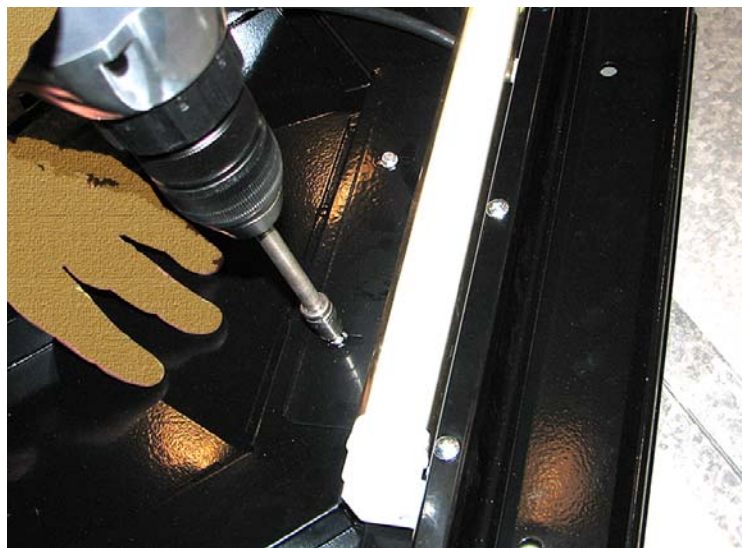


Figure 24 — Remove Shelf Lighting





**Figure 25 — Reinstall Bottom and Middle Shelf**

## 23 Reinstall bottom shelf.

Reinstall the bottom shelf and shelf supports first. Refer to the illustrations for shelf placement locations.

Count the number of slots from the top of the upright down to the bottom to determine the location of the bottom shelf.

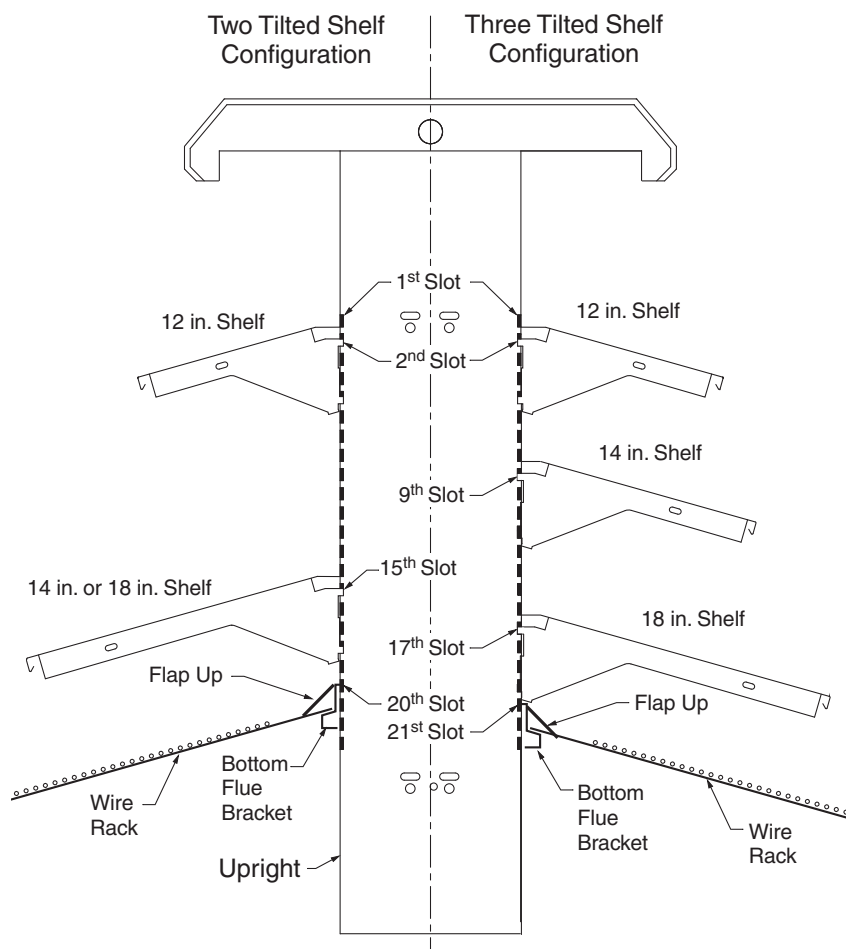
Use the 15th slot to install the bottom shelf for two-shelf configurations. Use the 17th slot to install the bottom shelf for tilted three-shelf configurations.

Use the 16th slot to install the bottom shelf for horizontal three-shelf configurations.

Use the 20th slot to install the bottom flue bracket for the two-shelf configurations.

Use the 21st slot to install the bottom flue bracket for three-shelf configurations.

Reinstall middle shelf and shelf supports (if required) using the 9th slot location.



**Figure 26A — Tilted Shelf Configurations**

## 24 Reinstall top shelf.

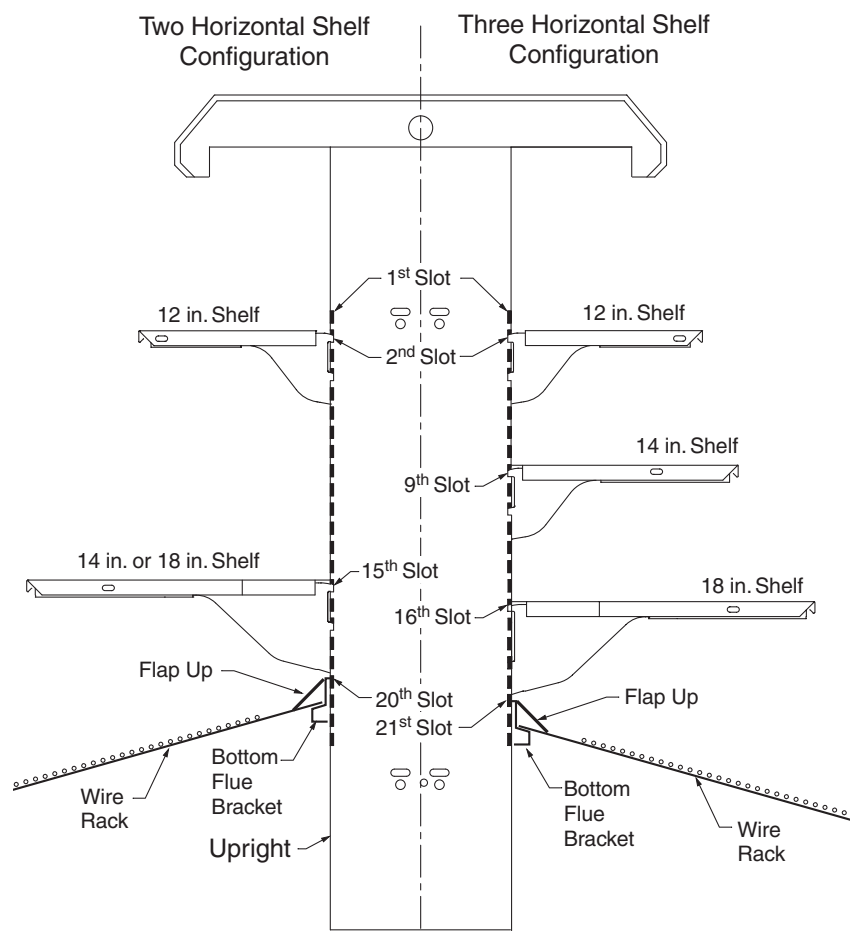
Reinstall the top shelf and top shelf supports. **Only the 12 in. shelf may be used for top shelf.**

Install top shelf in the second slot from the top of upright.

**NOTE:** The shelf slot locations for down-tilt shelves and horizontal shelves are the same for both two-shelf and three-shelf configurations.

### NOTICE

**Shelves must be placed in the slots indicated in the illustrations. Placing shelves at heights other than those indicated will adversely affect air distribution and temperature stability.**



**Figure 26B — Horizontal Shelf Configurations**



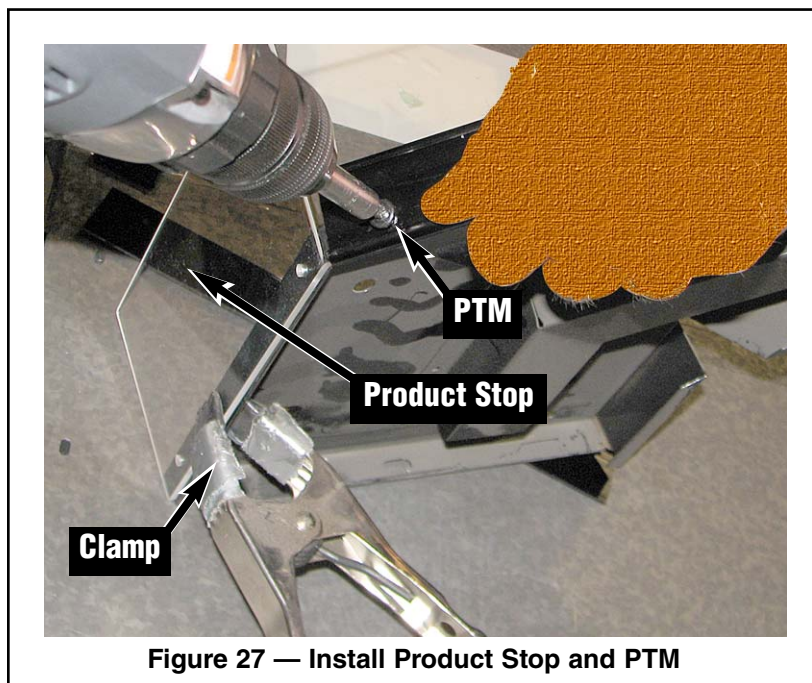
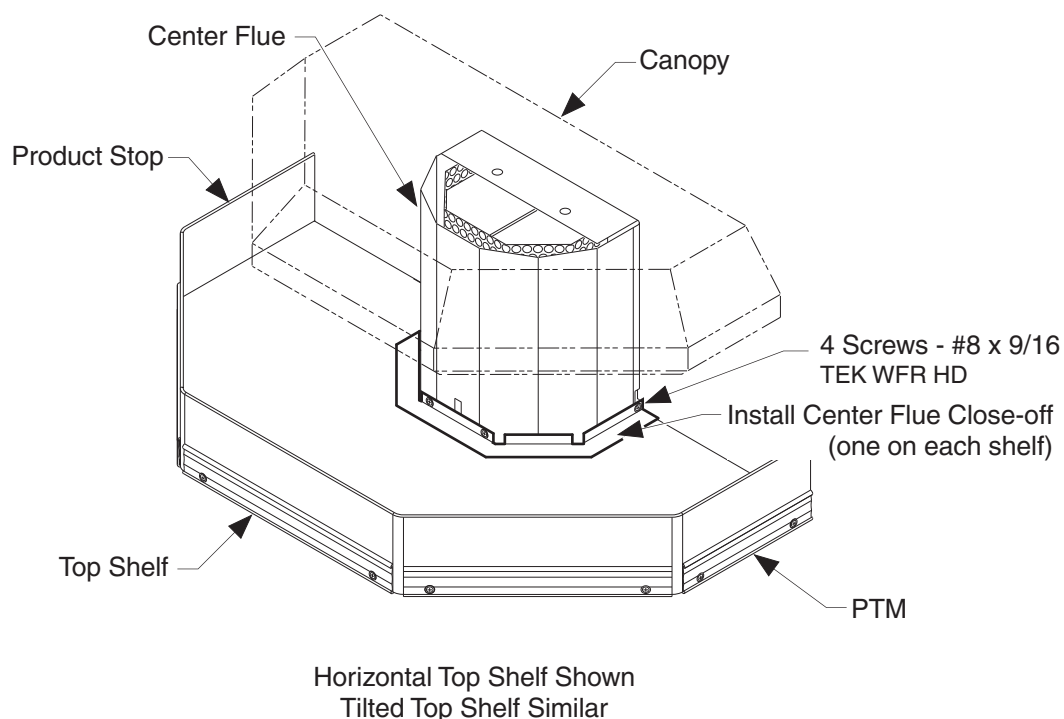


Figure 27 — Install Product Stop and PTM

## 25 Attach **Product Stop — 10** and **Price Tag Molding — 11 (PTM)** to front of top shelf.

Use clamps to secure the product stop to the front of top shelf. Place the price tag molding at the appropriate locations along the front of top shelf, and secure with **Wafer Screw—12** as shown.

**NOTE:** The longest PTM is attached to the center of product stop.

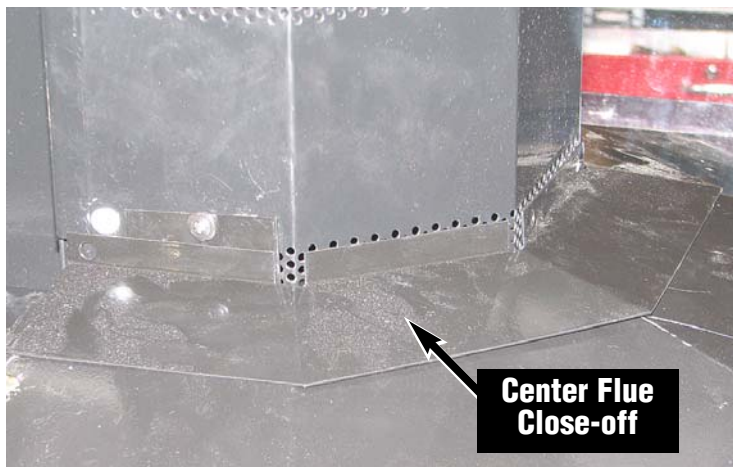


## 26 Replace top shelf supports and top shelf.

Lay a **Center Flue Close-off — 13** on top of each shelf. Fasten center plate to center flue with screws.

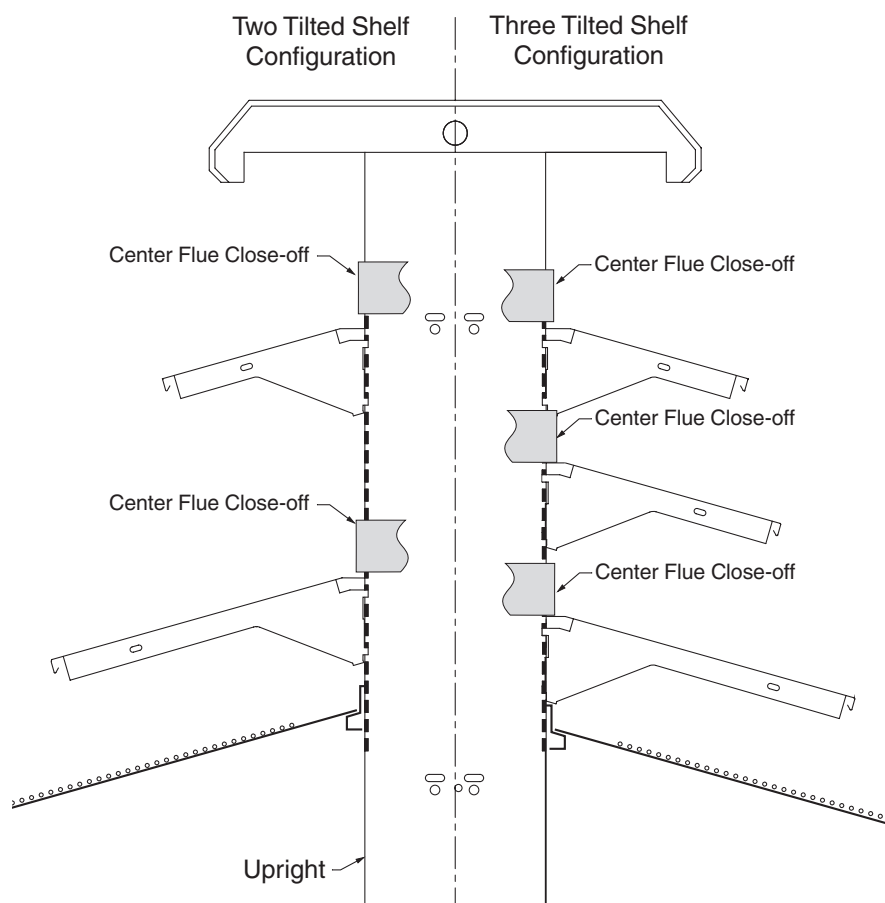
**This is necessary to lock the shelf in position!**

One open slot above top shelf should be visible prior to installing center plate flue. If not, the dividers will not fit properly.

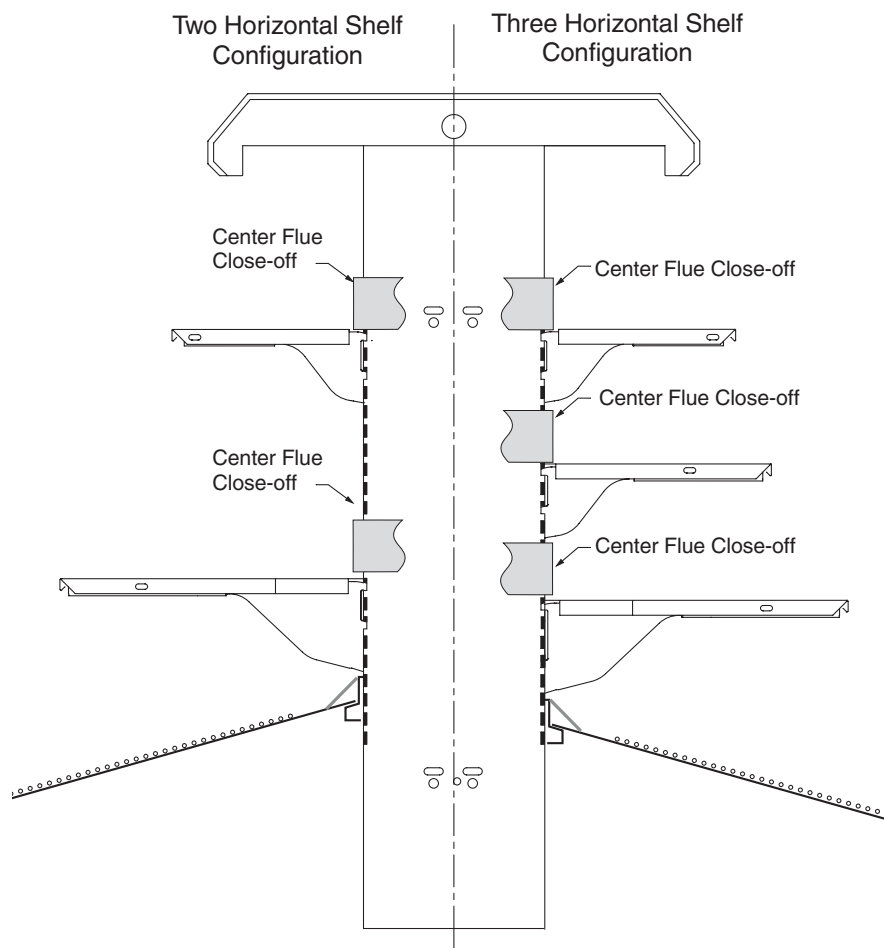


**Figure 28 — Install Center Flue Close-off**

Refer to Figures 28 and Details for Figure 28.



**Detail for Figure 28 — Tilt Shelf**



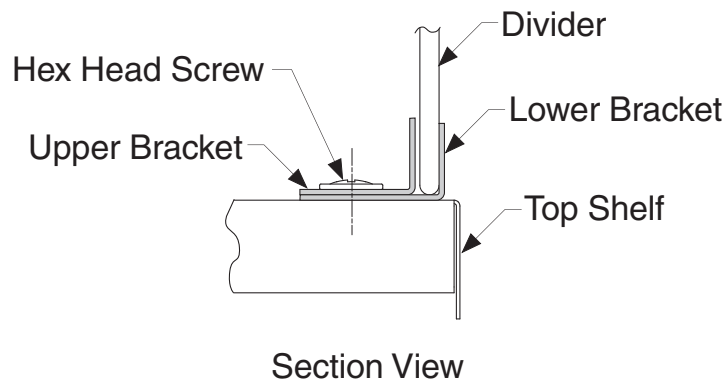
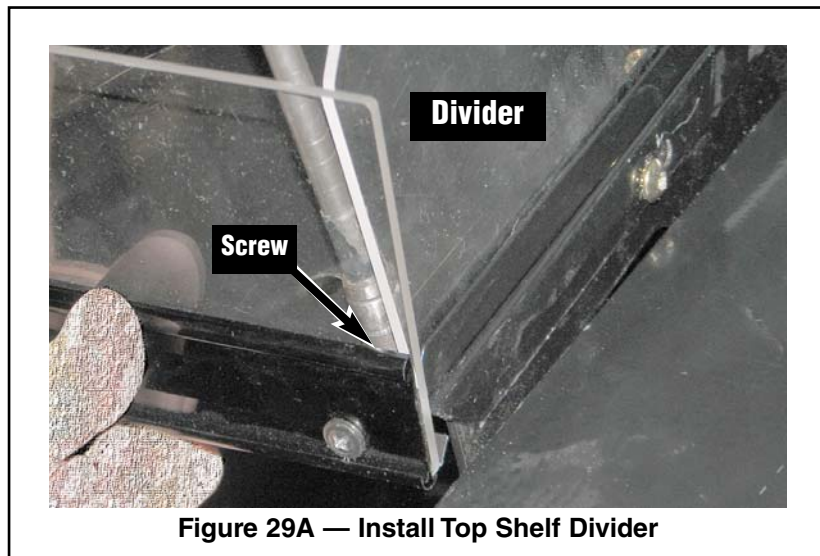
Detail for Figure 28 — Flat Shelf

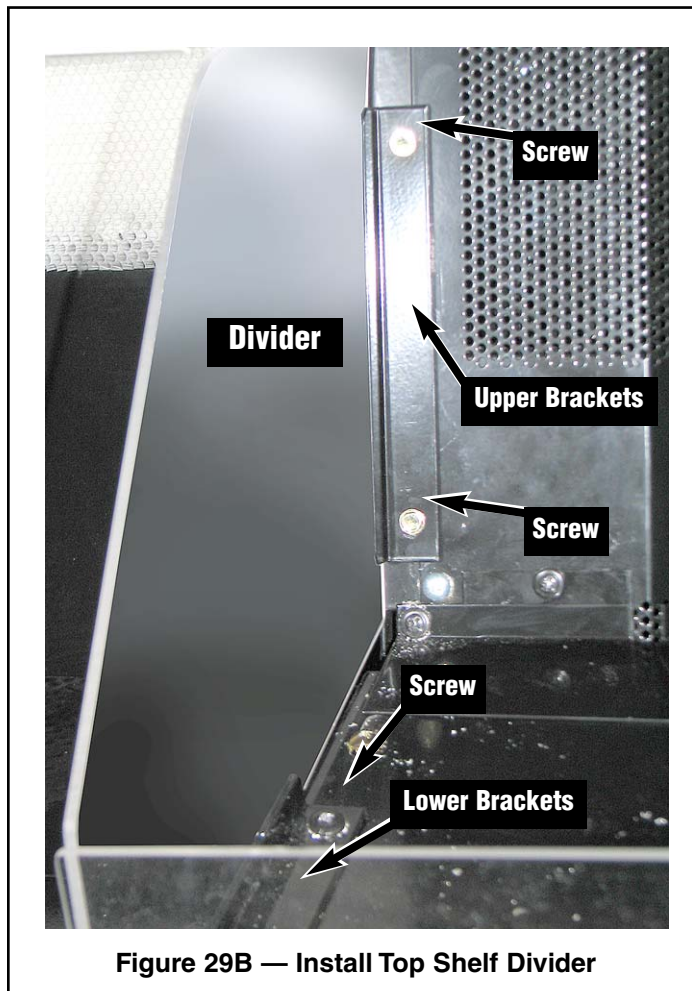


## 27 Attach **Lower Divider Brackets** — 14 to top shelf.

Place smaller bracket on top of larger bracket and attach to top edge of shelf using **Hex-Head Screws** — 9.  
(Brackets are used to attach the top shelf dividers.)

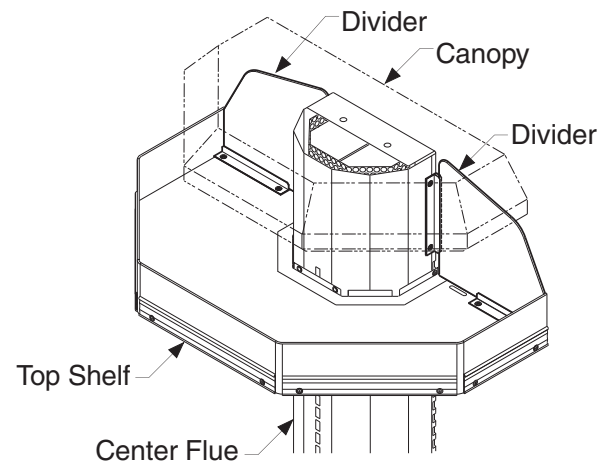
Refer to **Figures 28A and 28B**.





## 28 Attach Upper Divider Brackets — 15 to center flue using Hex-Head Screws — 9.

Insert **Dividers—16** between brackets.

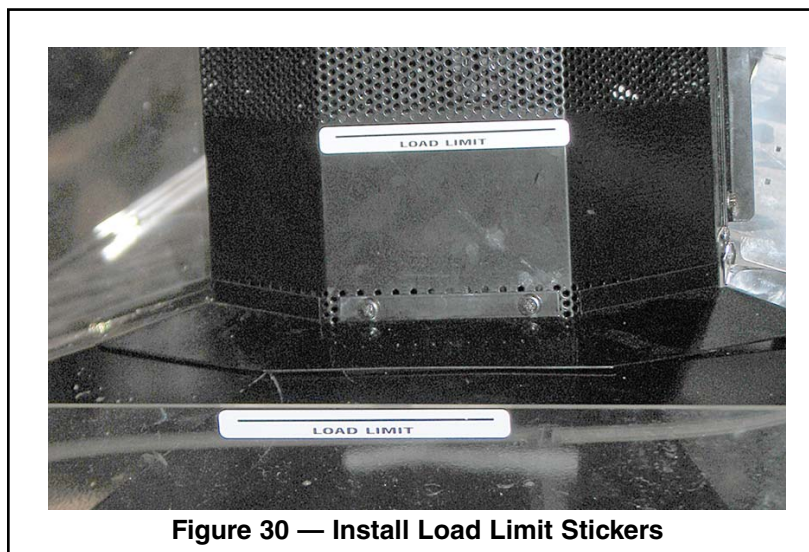


Horizontal Top Shelf Shown  
Tilted Top Shelf Similar

## 29 Apply Load Limit Stickers—17.

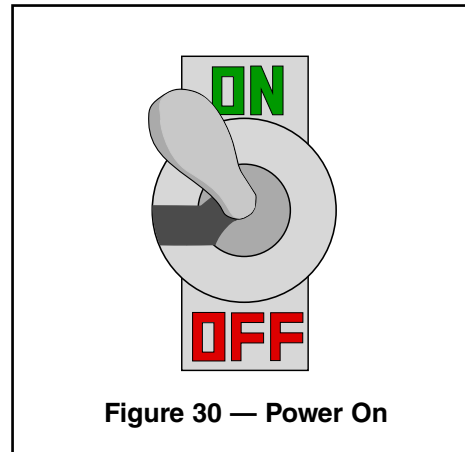
Place the first sticker on the center flue directly below the openings on the center flue as shown. Place the second sticker on the outside edge in the center of front product stop as shown.

Remove all shavings and debris from the merchandiser.



## 31 Return power to the merchandiser.

Ensure merchandiser resumes normal operation. Complete and return checklist with invoice on the following page.



### **CAUTION**

Fluorescent lamps contain mercury vapor. Mercury exposure at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Do not break or puncture fluorescent lamps. Dispose of, or store, all fluorescent lamps in accordance with Federal (40 CFR 273), State, and local hazardous waste requirements. Refer to <http://www.epa.gov/mercury/about.htm>

**Fluorescent Lamp Disposal:** The United States Environmental Protection Agency has information regarding environmentally-safe fluorescent lamp waste management programs.

On the Net: EPA Web site:  
<http://www.epa.gov/osw/hazard/wastetypes/universal/lamps/recycle.htm>



**CW2EXGE CHECKLIST****NOTE: INVOICE WILL NOT BE PAID WITHOUT COMPLETED CHECKLIST**

(FILL OUT ONE PER ISLAND)

Store Number: \_\_\_\_\_ Location: \_\_\_\_\_

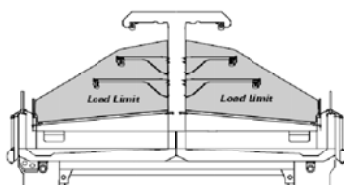
Serial Numbers: End 1 \_\_\_\_\_ End 2 \_\_\_\_\_ Manufactured Date: \_\_\_\_\_

Company Name: \_\_\_\_\_

Technician Name: \_\_\_\_\_ (Legibly Printed)

Technician Signature: \_\_\_\_\_ Retrofit Date: \_\_\_\_\_

**All temperature measurements shall be taken a minimum of 30 minutes after the merchandiser is in normal operation.**

Parameter	Set Point / Design	Actual Value
Store Conditions	Less than 75°F / 55% Rel. Humidity	_____ °F / _____ %
HVAC Outlets	None directed toward merchandiser	Yes / No
Sensor Calibrated / Offset	Calibrate to 32°F	
Sensor Relocated to end case		Yes / No
Refrigerant Type		
Suction Set Point	Should be equivalent to 18°F	_____ psi
Suction Dead Band		_____ psi
Control Type	Solenoid / EPR / Other	
If EPR, set point		_____ psi
Floating Suction Setpoint Enabled	Floating Band	Max _____ Min _____
Discharge Air Temperature	End 1: 28°F / End 2: 28°F	_____ °F / _____ °F
Superheat	End 1: 3°F - 8°F / End 2: 3°F - 8°F	_____ °F / _____ °F
Defrost Frequency	6 hours	
Defrost Termination Temp	48°F	_____ °F
Defrost Failsafe	45 minutes	
Top Shelf Location	One Slot from Top	Yes / No
Is Merchandise within Load Limit Profile?		Yes / No

**\* - Ambient measurements shall be taken 6 feet from merchandiser**

Notes: (Issues, Comments, Items to be Corrected)

**03/01/2010**

