

Phillips 66 Rivet ACM Fascia Installation Guide

This product is designed to fit a Phillips 66 36" or 48" canopy. Please verify that your site fits these specifications before beginning. If not, please communicate with the appropriate contacts.

Read through all of the instructions prior to beginning installation and verify (using the packing list) that all parts have been received and in good condition.

Important Notes

- Verify canopy dimensions before starting installation.
- Refer to any site specific layout or rendering.
- Use #12 x 7/8" hex washer hd Tek screws to attach mounting angles to canopy with recommended 12" spacing. Use K-lathe screws to attach ACM panels with recommended 12" spacing. Conditions outside of the norm, including excessive wind/snow load may necessitate special structure and fastening requirements.
- A gap is needed between panels to allow for thermal expansion (varies with temperature).



PLEASE NOTE

The packing lists below will vary per site, depending on what is needed. These lists are to give the installer a guideline of what should be received from LSI. Quantities will vary by site. Custom material will not be included below. Please make sure to check the packing list included with each shipment for more accurate verification.

PACKING LIST

Mounting Angles

QTY. PART #		PART#	DESCRIPTION	FINISH	
Varies	per Site	594488	1x2x96" Mounting Angle	Aluminum Mill	
Varies	per Site	576282	1x5x96" Mounting Angle	Galvanized Steel	

36" Fascia Corner - KIT PN 656348

QTY.	PART#	DESCRIPTION	FINISH
1	657541 39x59x59" 3mm Dual Coat ACM Panel (per panel – crated with 118" panels)		FEF Red/ MFS Gray
2	Non-illuminated Rivet (per panel – boxed by site)		Brushed Aluminum
Varies	658533	Hardware Kit (bagged by site)	Red/Silver K-Lathe Screws

36" Fascia Panel - KIT PN 656346

QTY.	PART#	DESCRIPTION	FINISH
1	657814	39x118" 3mm Dual Coat Corner (per panel – 20 panels per crate)	FEF Red/ MFS Gray
2	656836	Non-illuminated Rivet (per panel – boxed by site)	Brushed Aluminum
Varies	es 658533 Hardware Kit (bagged by site)		Red/Silver K-Lathe Screws

48" Fascia Corner - KIT PN 656344

QTY.	PART#	DESCRIPTION	FINISH	
1	656833	51x59x59" 3mm Dual Coat ACM Panel (per panel – 20 panels per crate)	FEF Red/ MFS Gray	
2	656836	656836 Non-illuminated Rivet (per panel – boxed by site)		
Varies	658533 Hardware Kit (bagged by site)		Red/Silver K-Lathe Screws	

48" Fascia Panel - KIT PN 656340

QTY.	PART#	DESCRIPTION	FINISH
1	656837 51x118" 3mm Dual Coat Corner (per panel – crated with 118" panels)		FEF Red/ MFS Gray
2	2 656836 Non-illuminated Rivet (per panel – boxed by site) Faries 658533 Hardware Kit (bagged by site)		Brushed Aluminum
Varies			Red/Silver K-Lathe Screws

Phillips 66 Rivet Image

The Rivet image is comprised of one main image – the red/silver ACM panel with two tone stripes and a dark gray rivet.

All graphics for Rivet will be pre-applied to the ACM panels. The ACM panels will be received pre-notched and pre-routed in a crate. The dark gray rivets and hardware will be received unassembled in a box per site.

All Rivet graphics are identical.



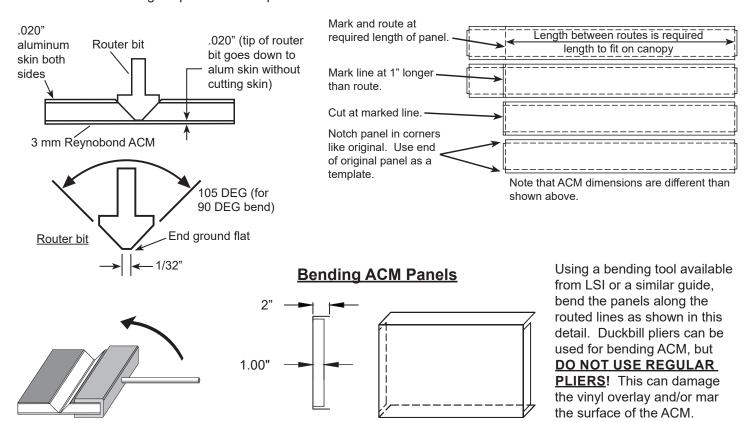
NOTE BEFORE CUTTING OR INSTALLING ANY ELEMENTS, FIELD VERIFY DIMENSIONS!

Verification is <u>VITAL</u> in ensuring all canopy elements are installed properly.

PLEASE REFER TO RENDERINGS FOR GUIDANCE WITH CUT PANELS AND ELECTRICAL WIRING.

Routing and Cutting ACM Panels

- · Measure the length between the last panels placed on the canopy for the length required.
- Take a 96" panel and measure from the existing end route to provide the length required to fit on the canopy (remember to reduce length if required to provide gap to allow for temperature expansion of panel). Create a new route at that length.
- Measure a line 1" from the new route, and cut the panel on that line. Notch the panel in the corners like the original. Use the end of the original panel as a template.



Minimum Temperature for Bending ACM

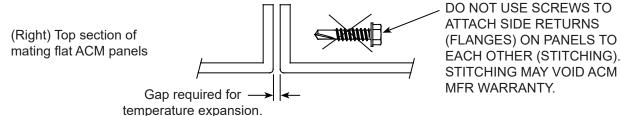
3M requires the substrate and ambient temperature to be a minimum of 60 deg F (16 deg C) for the 3M vinyl on the ACM panels for bending. Failure to follow this procedure can lead to cracking of the 3M vinyl.

When working in temperatures below 60 deg F, the ACM could be kept and bent inside a truck, car wash or other enclosed space that is at a higher temperature. Panels should be kept separated by 1/2" space to allow warm air to circulate around each panel. Panels must not be re-bent in the cold to avoid vinyl cracking.

Gap Needed Between Panels to Allow for Temperature Expansion

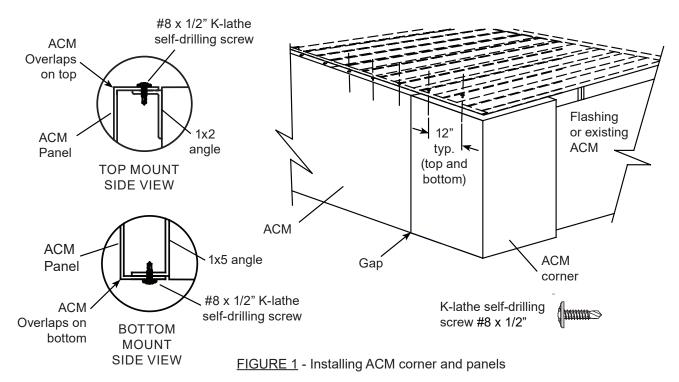
To prevent warping of ACM panels on canopy structures caused by thermal expansion, a gap should be allowed between panels. Also, stitching (using screws to attach end returns on adjacent panels together) must <u>not</u> be done, because it eliminates the gap between panels and aggravates warping of panels.

At 80 deg F or higher, a 1/16" gap should be used between full length panels. Installation at lower temperature requires a greater gap to allow the panels to expand (for example, installation at 40 deg F requires a 1/8" gap). The thermal coefficient of expansion of 1.31 x 10-5 in/in-degree F can be used to calculate required gap for a larger temperature change.



Installing ACM Corners/Panels

Install the ACM corners to both ends of the structure, overlapping the top of the top mounting angle and the bottom of the bottom angle. The top and bottom ACM returns should be attached with recommended 12" spacing using #8 x 3/4" K-Lathe screws. Conditions outside of the norm, including excessive wind/snow load may necessitate special structure and fastening requirements. Install ACM panels the same way as the ACM corners.



If Light Bar will not be installed on top of an ACM panel, then use PN 771520 - SCR TEK HWH #12X1 SHEETING, STL ZINC W/ WSHR to fasten top return of ACM panel to top mounting angle. These sheeting screws hold panels to canopy better in high wind. If Light Bar will be installed on top of a panel later, use the K-lathe screws to fasten top of that panel to top mounting angle (sheeting screws on panel prevent Light Bar from seating flush). Fasten Light Bar using sheeting screws later.



Take-off/Layout Guide

Specifications & Image Standards

36" fascia – 40" x 118" ACM panel w/ 2" additional top & bottom and 1" left & right Striped graphic pre-applied to panel

48" fascia – 51" x 118" ACM panel w/ 1 1/2" additional top & bottom and 1" left & right Striped graphic pre-applied to panel

Logos will always be centered 87" from the edge of the canopy, over the second rivet on the canopy side. For 36" fascia:

- The logo is approximately 45" tall if it extends above the canopy fascia
- The logo is approximately 33" tall if it is contained within the canopy fascia

For 48" fascia:

- The logo is approximately 60" tall if it extends above the canopy fascia
- The logo is approximately 45" tall if it is contained within the canopy fascia

The corner is a full fascia panel with a route in the center and 45° V-notch top & bottom.

A minimum cut panel length is 48", with the rivet as centered as possible within the panel.

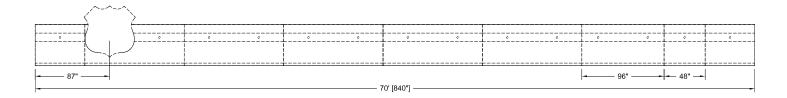
Example: 48" fascia height - 47'x70'

Canopy length -70' = 840" (logo for 48" canopy & extends above)

840" (overall) / 116" (panel/corner length) = 7.24 = 1 corner, 6 full panels & 28" remaining

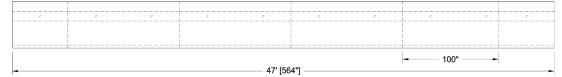
Since cut panels cannot be less than 48", two full panels will need to be cut down

One 116" panel can yield two 48" panels, and since one long side's panel orientation will generally be mirrored/copied to the opposite long side, only one additional 116" panel will be needed to complete both long sides.



Canopy length -47 = 564" (no logo)

564" (overall) / **116**" (panel/corner length) = 4.86 = **1 corner**, **3 full panels & 100**" **remaining** 100" remaining will require one additional full panel for each short side



Total materials needed for canopy:

(4) corner

(21) 116" panel

^{**}Note** A full canopy panel will always be behind a logo.

Installation

Demolition and Angle

Remove any fascia layers necessary to install the new fascia system.

It is the installer's responsibility to determine whether or not the canopy structure/existing fascia is capable of supporting the new fascia system.

If there are existing mounting angles in good condition, leave installed and use existing angles for installation.

If there are no mounting angles present, existing mounting angle is not in good condition, or if mounting angle needs to be installed onto existing fascia, install new angles (next section).



Table E - Mounting angles and Hardware

Name	Image	Application	Location
1" x 2" x 1/8" Mounting angle		Mounting ACM to canopy structure	Top of canopy structure
1" x 5" x 1/16" Mounting angle		Mounting ACM to canopy structure	Bottom of canopy structure
#12x7/8 Tek screw (suggested - in- staller provided)		Mounting angle to canopy structure	Top and bottom of canopy structure

There will be 2 mounting angles:

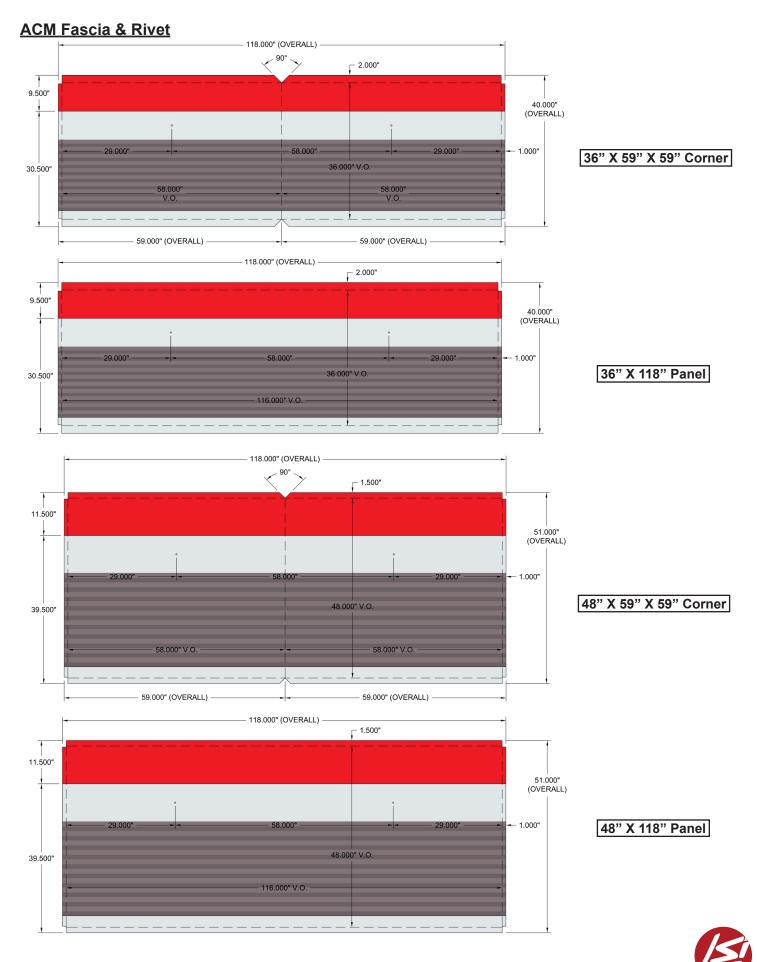
Top angle: 1 x 2 x 1/8" aluminum Bottom angle: 1 x 5 x 1/16" aluminum

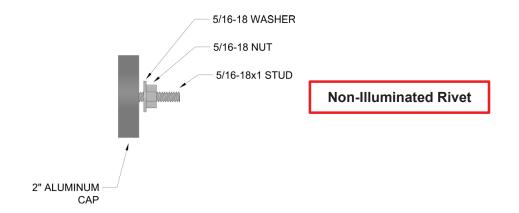
For 36" canopy, angles will be placed 35-3/4 to 35-5/8" apart.

For 48" canopy, angles will be placed 47-3/4 to 47-5/8" apart.

Suggested hardware for installation is a #12x7/8 Tek screw – this can vary depending on the canopy structure. Because of this, installers are to provide all necessary hardware for attaching angles to structure.

The mounting angles will be attached straight, level and plumb to the existing canopy structure. The top angle will be installed approximately 12" on center with a (suggested) #12 x 7/8 Tek screw. The bottom angle will be installed with a (suggested) #12 x 7/8 Tek screw as well.





Hardware

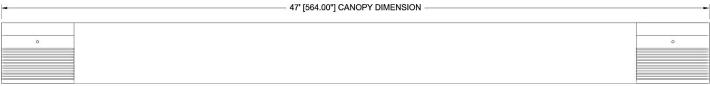
Name	Image	Application	Location	
#8x1/2 K Lath screw (red)		ACM to angle	Top and bottom of ACM fascia	
#8x1/2 K Lath screw (silver)		ACM to angle	Top and bottom of ACM fascia	

Installation

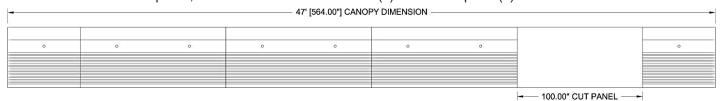
All ACM will be installed with red and silver #8x1/2 K-Lath screws. Hardware should be in found in a bulk bag.

Fold ACM along routing lines, using an ACM bending tool or duckbill pliers. **DO NOT USE REGULAR PLIERS!** This can mar the surface of the ACM.

1. Install corner panels first.



2. Begin installing full 116" ACM panels down the canopy fascia until the remaining space is less than 116". If there's a logo on that side, full panels should always be behind the logo. Measure the space between the corners to the last full panel, and determine the dimension(s) for the cut panel(s).



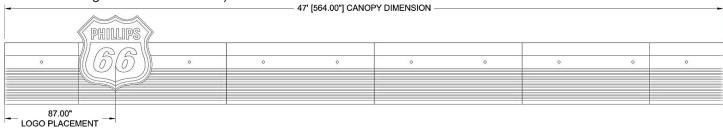
3. Cut and install the panel(s) to complete the canopy fascia for that side. See below section for routing & cutting information. Assemble and install the painted rivets into the pre-punched holes in the ACM panel. If there is an existing structure that blocks access to the back of the ACM panel once installed, then assemble and install the painted rivets to the ACM before installing ACM to canopy structure.

47' [564.00"] CANOPY DIMENSION									
0	0	0	0	0	0	o	0	0	0
→ 100.00" CUT PANEL →									

4. Determine the logo placement. It will always be 87" on center from the edge of the canopy (centered over the second rivet on the canopy side).

87.00" LOGO PLACEM	47' [564.00"] CANOPY DIMENSION ————————————————————————————————————								
0	0	o	0	o	o	0	0	0	0

5. Install the logo (if there is LED light bar for the canopy, it needs to be installed **BEFORE** the logo – see additional logo information below).



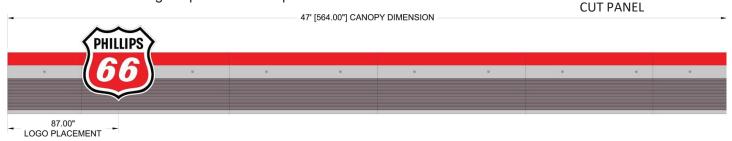
Routing and cutting ACM panels

Measure the length between the last panel and the corner panel (length "X").

Take a 116" panel and measure from the route inward for the length of "X", and create a new route.

Measure over 1", and cut the panel. Notch the panel as the original, 1 3/4" deep.

Use the end of the original panel as a template



Depending on the circumstance, it is possible that there will be more than one cut panel on a side. If a cut length will be 48" or less, two cut panels will be required.

The rivet(s) on the cut panel need to be as centered as possible within the panel – cutting both sides of the panel down to achieve this may be necessary.

Cutting at the following lengths will interfere with the painted rivets:

- **28**" to 30"
- 6 86" to 88"

A cut seam should **NEVER** fall behind a logo. Begin all panel runs on a logo side at the logo end.

LED Lightbar

Please see the LED Light Bar Installation Guide BEFORE beginning any installation of the light bars.

Logos are installed AFTER the light bar has been installed.

If a canopy receives LED light bar, strips of 3" matte film will be provided in the boxes containing the light bar sections. This matte film **MUST** be installed **BEFORE** the LED light bar is installed. Failure to do so will cause the LED light bar to distribute poorly on the canopy surface.

The suggested method of application is to apply the matte film to the ACM panels before installation onto the canopy. This can ensure that the seams of the matte film wrap a small amount on the flange to keep from peeling up in the future. The film does not have to go edge to edge of the ACM panel, but it MUST cover the entire visual opening of the panel (116") between the flanges.

Before beginning lightbar installation:

- Identify the sides of the structure that will receive light bar BEFORE BEGINNING INSTALLATION. Refer to renderings/layouts if provided.
- Be sure that matte diffuser film has been applied to all sides receiving light bar. All matte film is to be applied on site by the installer. DO NOT PROCEED WITH LIGHT BAR UNTIL MATTE FILM HAS BEEN APPLIED.
- There are offsets on the left hand side of each section/corner. These offsets will fit into the next section, securing them together without gaps.
- The light bar section must be installed tight and flush against the fascia, with as little of a gap as possible between the reflector and the fascia. Failure to do so will cause improper illumination.
- If multiple sides of fascia will have illumination, a corner is needed at each light bar intersection.
- If not all sides of fascia are illuminated, end caps will be installed to terminate the light bar run at the edge of the fascia.
- Verify all sections/measurements BEFORE cutting. Failure to do so can result in a shortage of parts, with replacements at the installer's expense.



Logo on 36" Fascia Installation Guide



If a canopy has LED light bar (see additional LED Light Bar Installation Guide for guidance), the LED light bar will need to be installed **FIRST**, and then the logo will be installed **OVER** the LED light bar with LSI provided brackets.

If there is no LED light bar, the logo will be installed flush against the canopy fascia (remove any necessary rivets so that the logo is flat) using the hardware provided with the logo. For any additional hardware/brackets needed (i.e. snowload, windload, etc.), please contact the appropriate project manager.

33" logo on 36" fascia

A 33" logo on 36" fascia is used when the logo cannot extend above the 36" fascia.

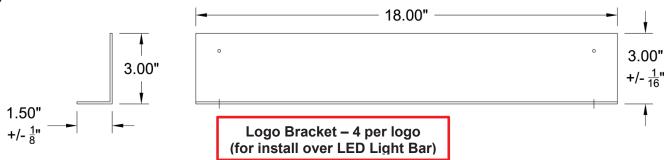
Logo placement will be centered 87" from the edge of the canopy and centered within the top and bottom of the fascia.

Hardware for the brackets will be LSI provided; hardware for the logo will come with the logo.



Mounting bracket

If a canopy has LED light bar, a mounting bracket will be needed to install the logo so that it extends over the light bar. Hardware for the bracket will be included with the bracket itself.



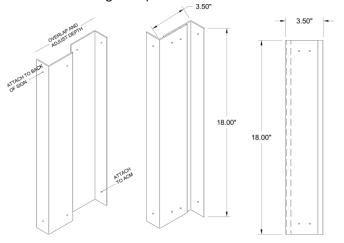
Hardware

Name	Image	Application	Location
#12x7/8 Tek screw		Attach bracket to ACM	Mounting bracket to ACM
#10x3/4 Tek screw		Attach brackets together	Mounting bracket to mounting bracket (to form Z)

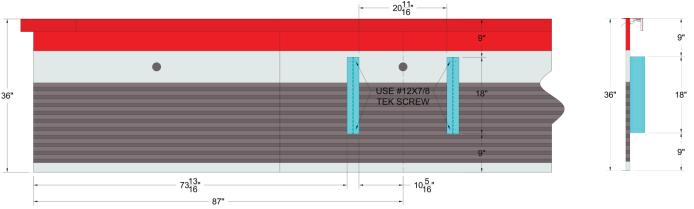


Installation of brackets

- 1. Measure 87" from the edge of the canopy to find the centerline of the logo for placement.
- 2. Determine the distance from the canopy fascia to extend the logo past the LED light bar. The "L" brackets are adjustable, and in most cases will be $3\frac{1}{2}$ " deep. Use $\#10x^3/_4$ tek screws to attach two "L" brackets together for the desired depth.



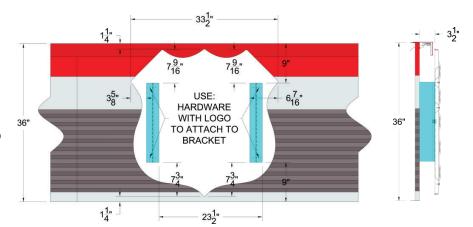
3. Install the assembled brackets directly to the ACM fascia vertically, 10 $^{5}/_{16}$ " off center. The brackets will fit below the LED light bar, and should be centered top/bottom on the canopy fascia. Attach to the fascia using $\#12x^{7}/_{8}$ tek screws.



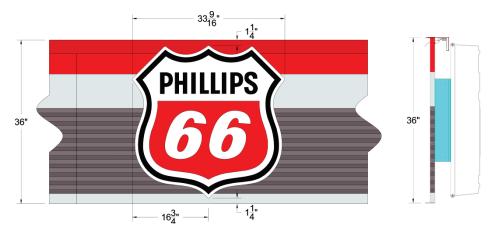
4. Install the back of the logo to the brackets, using the hardware provided with the logo.

If possible, use any of the existing mounting holes in the logo back – any holes that are not used need to be filled with caulk/silicone to create a seal so water cannot get inside.

Be sure to follow the measurement guidelines provided. These will help to ensure the logo image is installed properly on the canopy fascia (centered top/bottom & 87" from the edge).



- 5. Complete electrical connections per sign supplier's instructions.
- 6. Attach the face to the logo back, using the screws and clips provided with the logo.

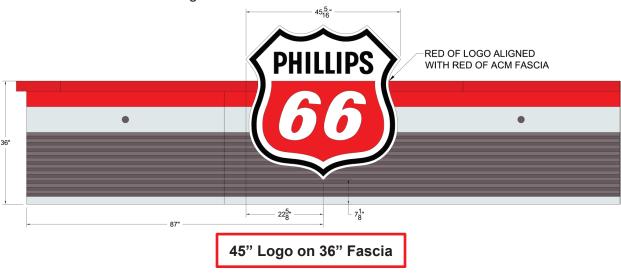


45" logo on 36" fascia

A 45" logo on 36" fascia is used when the logo extends above the 36" fascia.

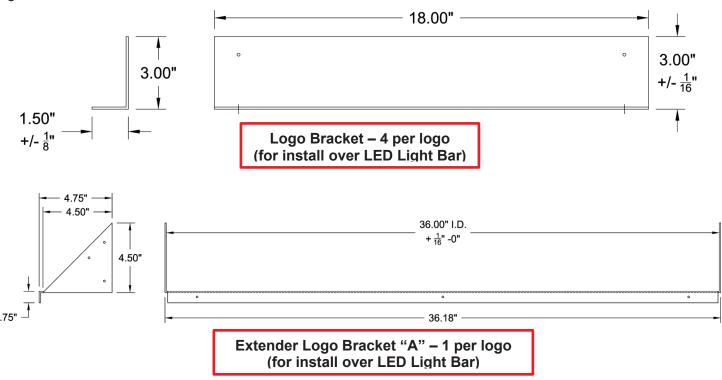
Logo placement will be centered 87" from the edge of the canopy and the red of the logo needs to align with the top of the red of the canopy fascia/LED light bar.

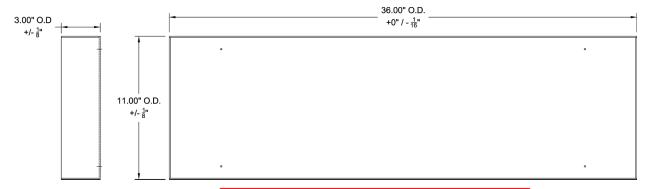
Hardware will be included with the logos.



Mounting bracket

If a canopy has LED light bar, a mounting bracket will be needed to install the logo so that it extends over the light bar. Hardware for the bracket will be included with the bracket itself.





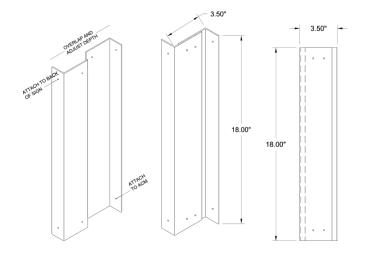
Extender Logo Bracket "B" – 1 per logo (for install over LED Light Bar)

Hardware

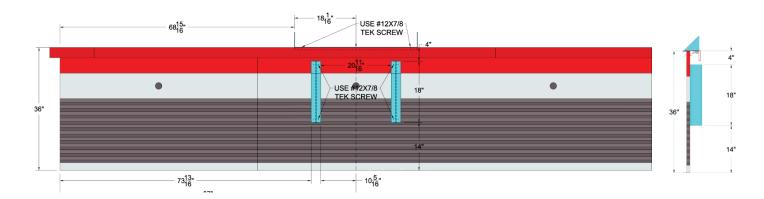
Name	Image	Application	Location
#12x7/8 Tek screw		Attach bracket to ACM	Mounting bracket to ACM
#10x3/4 Tek screw		Attach brackets together	Mounting bracket to mounting bracket

Installation of brackets

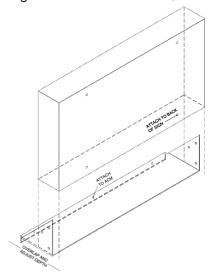
- 1. Measure 87" from the edge of the canopy to find the centerline of the logo for placement.
- 2. Determine the distance from the canopy fascia to extend the logo past the LED light bar. The "L" brackets are adjustable, and in most cases will be 3 $\frac{1}{2}$ " deep. Use $\#10x^3/_4$ tek screws to attach two "L" brackets together for the desired depth.

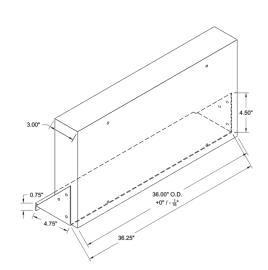


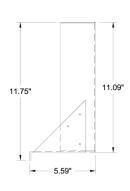
3. Install the assembled brackets directly to the ACM fascia vertically, $10^{5}/_{16}$ " off center. The brackets will fit below the LED light bar, and should be 14" from the bottom of the canopy fascia. Attach extender bracket "A" to the top of the canopy fascia. The back flange on the bracket should be flush against the backside of the canopy fascia. Attach all brackets to the fascia using # $12x^{7}/_{8}$ tek screws.



4. Extender bracket "B" fits in between the uprights of extender bracket "A" and can be adjusted to extend the same distance as the "L" brackets. In most cases, the overall depth will be $5^{9}/_{16}$ ". Secure to extender bracket "A" through the sides with #10x $^{3}/_{4}$ tek screws for the desired depth.

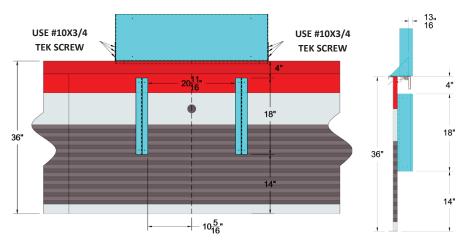






Be sure that the brackets are even once installed onto the canopy fascia.

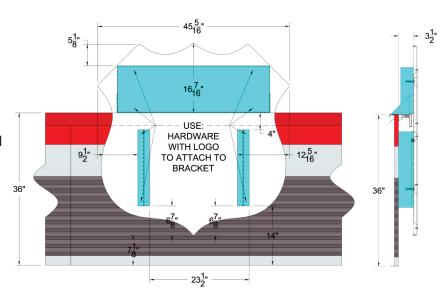
Failure to do so will result in the logo installing at an angle.



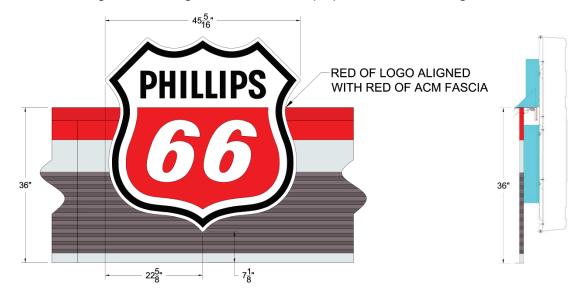
5. Install the back of the logo to the brackets, using the hardware provided with the logo.

If possible, use any of the existing mounting holes in the logo back – any holes that are not used need to be filled with caulk/silicone to create a seal so water cannot get inside.

Be sure to follow the measurement guidelines provided. These will help to ensure the logo image is installed properly on the canopy fascia (red of logo aligned with top of the ACM fascia & 87" from the edge).



- 6. Complete electrical connections per sign supplier's instructions.
- 7. Attach the face to the logo back, using the screws and clips provided with the logo.





Logo on 48" Fascia Installation Guide



If a canopy has LED light bar (see additional LED Light Bar Installation Guide for guidance), the LED light bar will need to be installed **FIRST**, and then the logo will be installed **OVER** the LED light bar with LSI provided brackets.

If there is no LED light bar, the logo will be installed flush against the canopy fascia (remove any necessary rivets so that the logo is flat) using the hardware provided with the logo. For any additional hardware/brackets needed (i.e. snowload, windload, etc.), please contact the appropriate project manager.

45" logo on 48" fascia

A 45" logo on 48" fascia is used when the logo cannot extend above the 48" fascia.

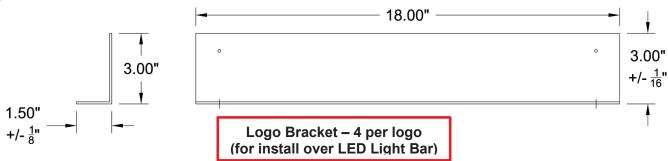
Logo placement will be centered 87" from the edge of the canopy and centered within the top and bottom of the fascia.

Hardware will be included with the logos.



Mounting bracket

If a canopy has LED light bar, a mounting bracket will be needed to install the logo so that it extends over the light bar. Hardware for the bracket will be included with the bracket itself.



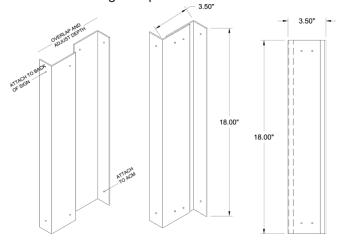
Hardware

Name	Image	Application	Location				
#12x7/8 Tek screw		Attach bracket to ACM	Mounting bracket to ACM				
#10x3/4 Tek screw		Attach brackets together	Mounting bracket to mounting bracket (to form Z)				

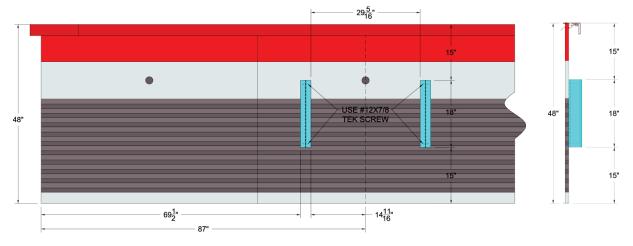


Installation of brackets

- 1. Measure 87" from the edge of the canopy to find the centerline of the logo for placement.
- 2. Determine the distance from the canopy fascia to extend the logo past the LED light bar. The "L" brackets are adjustable, and in most cases will be $3\frac{1}{2}$ " deep. Use $\#10x^3/_4$ tek screws to attach two "L" brackets together for the desired depth.



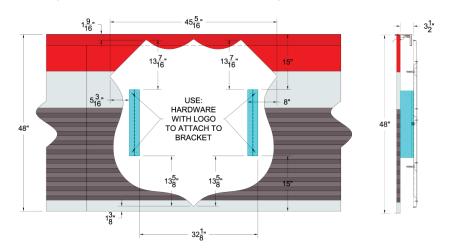
3. Install the assembled brackets directly to the ACM fascia vertically, 14 $^{11}/_{16}$ " off center. The brackets will fit below the LED light bar, and should be centered top/bottom on the canopy fascia. Attach to the fascia using $\#12x^7/_8$ tek screws.



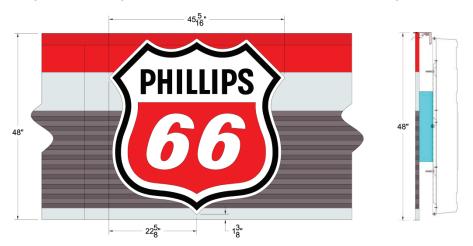
4. Install the back of the logo to the brackets, using the hardware provided with the logo.

If possible, use any of the existing mounting holes in the logo back – any holes that are not used need to be filled with caulk/silicone to create a seal so water cannot get inside.

Be sure to follow the measurement guidelines provided. These will help to ensure the logo image is installed properly on the canopy fascia (centered top/bottom & 87" from the edge).



- 5. Complete electrical connections per sign supplier's instructions.
- 6. Attach the face to the logo back, using the screws and clips provided with the logo.

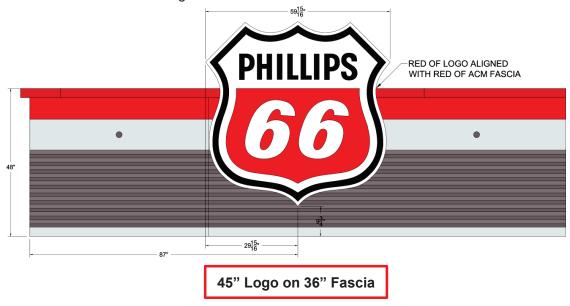


60" logo on 48" fascia

A 60" logo on 48" fascia is used when the logo extends above the 48" fascia.

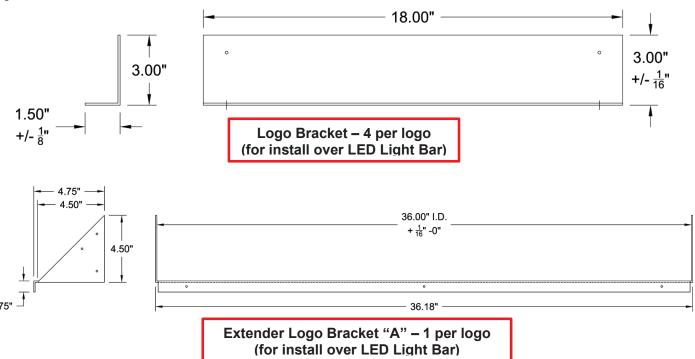
Logo placement will be centered 87" from the edge of the canopy and the red of the logo needs to align with the top of the red of the canopy fascia/LED light bar.

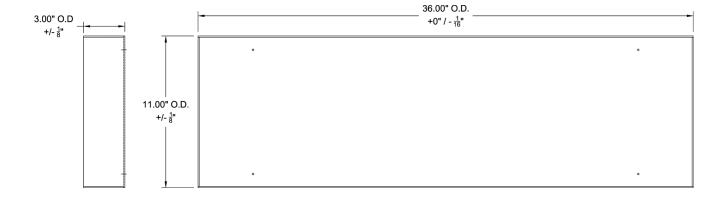
Hardware will be included with the logos.



Mounting bracket

If a canopy has LED light bar, a mounting bracket will be needed to install the logo so that it extends over the light bar. Hardware for the bracket will be included with the bracket itself.





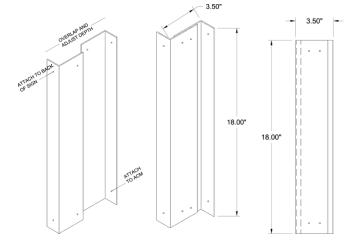
Extender Logo Bracket "B" – 1 per logo (for install over LED Light Bar)

Hardware

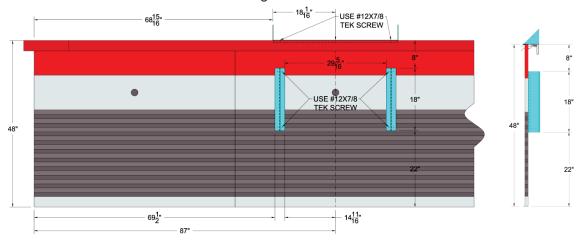
Name	Image	Application	Location
#12x7/8 Tek screw		Attach bracket to ACM	Mounting bracket to ACM
#10x3/4 Tek screw		Attach brackets together	Mounting bracket to mounting bracket

Installation of brackets

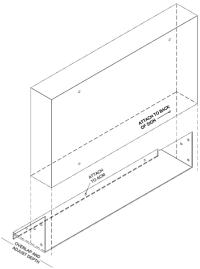
- 1. Measure 87" from the edge of the canopy to find the centerline of the logo for placement.
- 2. Determine the distance from the canopy fascia to extend the logo past the LED light bar. The "L" brackets are adjustable, and in most cases will be 3 $\frac{1}{2}$ " deep. Use # $10x^3/_4$ tek screws to attach two "L" brackets together for the desired depth.



3. Install the assembled brackets directly to the ACM fascia vertically, $14^{-11}/_{16}$ " off center. The brackets will fit below the LED light bar, and should be 22" from the bottom of the canopy fascia. Attach extender bracket "A" to the top of the canopy fascia. The back flange on the bracket should be flush against the backside of the canopy fascia. Attach all brackets to the fascia using $\#12x^7/_8$ tek screws.

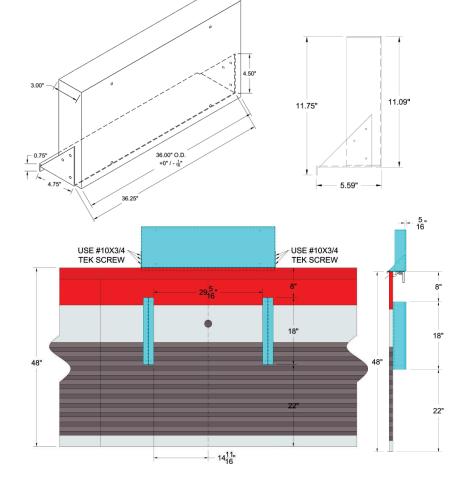


4. Extender bracket "B" fits in between the uprights of extender bracket "A" and can be adjusted to extend the same distance as the "L" brackets. In most cases, the overall depth will be $5^{9}/_{16}$ ". Secure to extender bracket "A" through the sides with $\#10x^{3}/_{4}$ tek screws for the desired depth.



Be sure that the brackets are even once installed onto the canopy fascia.

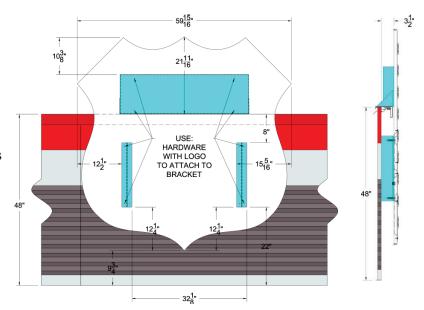
Failure to do so will result in the logo installing at an angle.



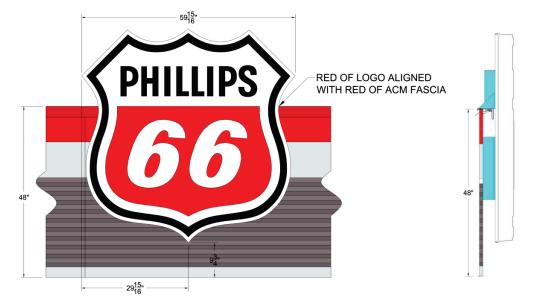
5. Install the back of the logo to the brackets, using the hardware provided with the logo.

If possible, use any of the existing mounting holes in the logo back – any holes that are not used need to be filled with caulk/silicone to create a seal so water cannot get inside.

Be sure to follow the measurement guidelines provided. These will help to ensure the logo image is installed properly on the canopy fascia (red of logo aligned with top of the ACM fascia & 87" from the edge).



- 6. Complete electrical connections per sign supplier's instructions.
- 7. Attach the face to the logo back, using the screws and clips provided with the logo.



06/07/2017 - Date created

09/29/2017 - Update to demolition & angle information

LED light bar section added

10/18/2017 - Table of Contents

Packing List page

Fascia/Rivet drawings

Bizlink verbage

Logo bracket installation

08/29/2019 – Add installation guide part number 673168 to front page.

9/8/2021 - Added updated instructions (yellow box) to use PN 771520, #12X1 sheeting screws to fasten top return of ACM panels to top mounting angle (for more strength in high wind). Added page to field cut and fold ACM panels.

Added gap requirement between panels to allow for temperature change and no stitching panels together. 1/13/2025 - Added temp requirements for bending ACM panels. Updated to current install guide standards.

