

2020 Tower Canopy OCU (TC-OCU)

FLASHRIGHT™ Display Installation Guide



Installation Videos are available online 24/7 at
www.FlashRightDisplays.com/installs

FLASHRIGHT™ Displays
6210 Browns Bridge Rd.
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www.FlashRightDisplays.com

PLEASE READ WARNING STATEMENTS ON THE NEXT PAGE

Warning Statements

- **A qualified person should perform the installation & servicing of the FlashRight Displays (FRD).** Damage can result from dropping or mishandling the Display.
- Standard safety measures must be practiced at all times during the installation of this product. Use proper safety gear and tools for the installation procedure to prevent personal injury.
- **Prior to installation of this product, the installation instructions should be read and completely understood.** The installation instructions must be read to prevent personal injury and property damage. Keep these installation instructions in an easily accessible location for future reference.
- When working around an electrical source, **make sure the electrical source has been shut off** and confirm it is off with the appropriate testing device.



- **The FlashRight Display is a 12 Volt DC system** and must be used with the **plug-in 120 VAC to 12 VDC** power transformer supplied.

(Do not connect the 2 conductor Display wiring directly to 120 VAC)



- All wiring should meet or exceed local codes and the **National Electric Code (NEC).**
- **1 Year Warranty** on all electronic FlashRight Display Components.

Overview

- The FlashRight Display (**FRD**) is designed to install on the right side of most any Drive-Thru OCU, COD or Speaker Post. All the (**FRD**) electronic components are outdoor rated.
- Please allocate enough time to correctly complete any installation configuration.
- Installation should be completed during dry conditions and above 40° F.

FCC Compliance Statement

- This equipment has been tested and found to be FCC Part 15B compliant.
- Caution:** Any changes to this equipment not approved by the responsible parties for compliance could void the user's authority to use this equipment.



Power Supply

- Power Supply used for the FlashRight Display is UL listed for US and Canada.
- Switching Power Supply = Input: 100-240V~50/60Hz 0.5A
Output: 12.0V ---- 0.8A

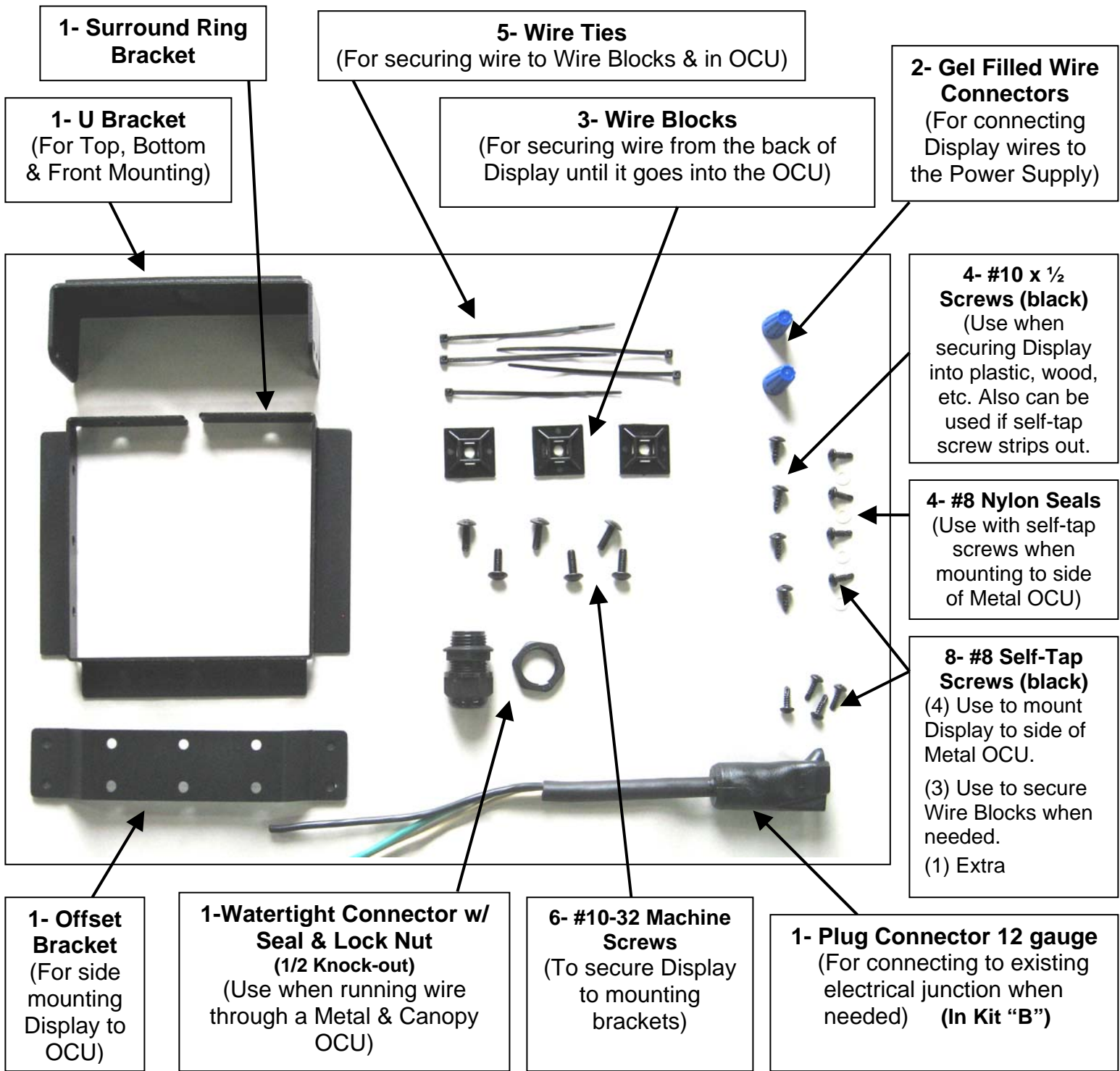


For Technical Assistance Call: 678-455-9121
Mon - Fri 9 am-5 pm
(Eastern Standard Time)

-OR-

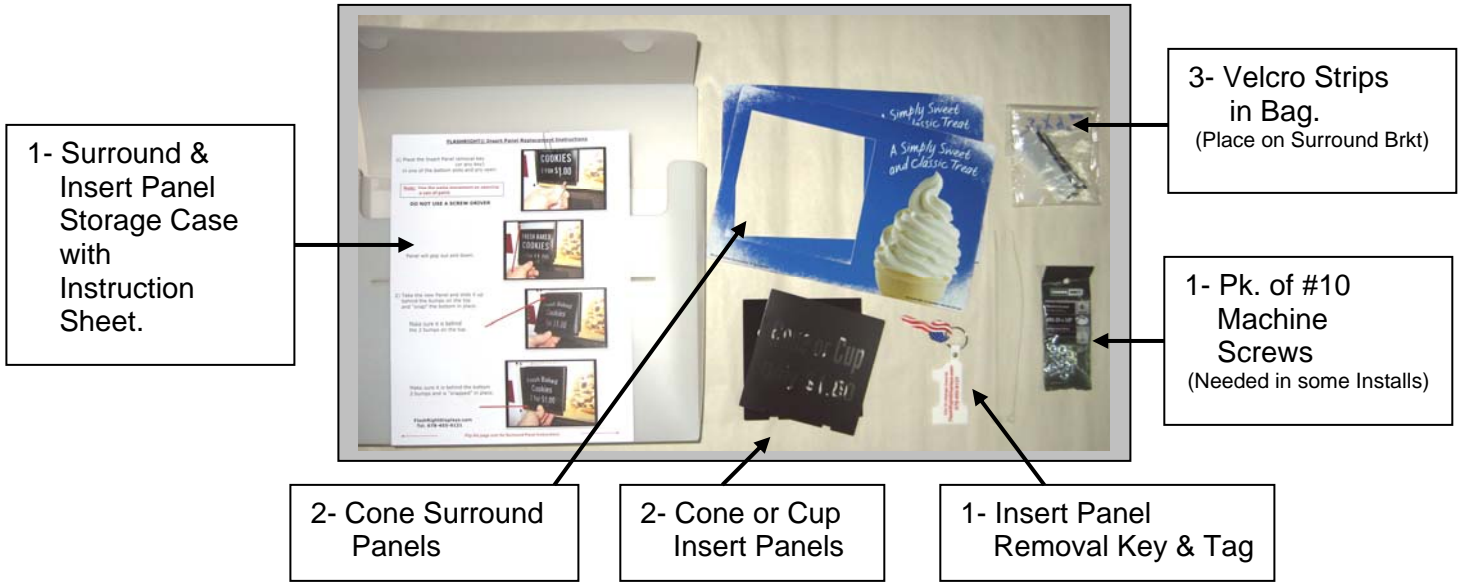
Email us @ info@FlashRightDisplays.com

KIT "A": FLASHRIGHT Display (FRD) Brackets and Hardware Description



- The above parts are in Kit "A" (except the 1-Plug Connector 12 gauge)
- PLEASE READ "DISPLAY SET-UP GUIDE" BEFORE INSTALLATION

KIT "B": FLASHRIGHT Display Installation Accessories



Also in KIT "B" are the Installation Manuals & the Plug Connector

Recommended Supplies for FLASHRIGHT Installation



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- A) Felt Tip Marker (Black)
- B) Romex Connector - For 1/2" Knock Out (Sometimes needed)
- C) RED Wire Nut Connects (Sometimes needed)
- D) YELLOW Wire Nut Connectors (Sometimes needed)
- E) Electrical Tape (Sometimes needed)
- F) #10 x 3/4" Hex Head - Self Drilling Screws (Sometimes needed)
- G) Heavy Duty 3 Way Plug (Rarely Needed)
- H) Caulk Gun with a Tube of 100% Silicone Caulking (Sometimes needed)

Recommended Tools for FLASHRIGHT Installation



- A) #1 Flat Blade Screw Driver
- B) #1 Phillips Head Screw Driver
- C) #2 Flat Blade Screw Driver (Short)
- D) #2 Phillips Head Screw Driver (Short)
- E) #2 Square Recess Bit
- F) Torx Bit Set (Tamper Resistant)
Make sure they are Tamper Resistant type
- G) Magnetic Nut Driver Set (7/16" – 3/8" – 5/16")
- H) 1/8" Drill Bit (Set of at least 2 & have extras)
- I) 1/4" Drill Bit (Set of 2 & have extras)
- J) 3/8" Drill Bit (Set of 2)
- K) # 4 Step Drill Bit (3/16" to 7/8")
- L) # 1 Step Drill Bit (1/8" to 1/2")
- M) 6" Magnetic Drive (Extension Bit)
- N) Metal Pedestal OCU Key
 - Keys can be purchased from Assembly Fasteners, Tel # 800-488-4777
 - Part Number: Southco E3-5-15 (Key-Metric Steel – Approx. cost \$5.00)
- O) Utility Knife
- P) Tape Measure
- Q) Wire Strippers
- R) Long Nose Pliers
- S) Channel Lock Pliers
- T) Flash Light
- U) Voltage/Multi Meter (Analog or Digital)
- V) Cordless Drill w/ Magnetic Drive Bit (Minimum 12VDC or Higher)
- W) IDEAL Part # 45-165 (Buy online-Amazon) This will help speed up install & cut cable perfect.

Cable Stripper



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FLASHRIGHT Display (FRD) Set-Up Guide

- Set up the Display as shown below when securing to the right side of a Canopy OCU, a Metal Pedestal OCU or the right side of a Pole Canopy OCU.

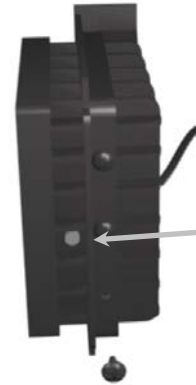
1- Place Surround Ring Bracket over Display.



2- Place Offset Bracket over Surround Bracket and secure with (3) #10 Machine Screws.



3- Align Surround Bracket holes on right side of the Display and secure with (3) #10 Machine Screws.



Left Side of Display Shown (above)

Right Side of Display Shown (above)



Helpful Hint:

- Make sure the Surround Bracket and Offset Bracket are aligned on each of the front edges.
- Use the front screw holes of the Offset Bracket.

< Left Side Shown

Right Side Shown >



Note: The right side of the (FRD) MUST stay clear to allow proper operation of the photocell. Photo cell is on the right side behind a clear round cover (see above).

2020 Tower Canopy OCU

Mount the FRD centered with the Electronic Display.

Note: If there is an OCU Side Sign on the right side in the way, move it up higher out of the location for the FRD.

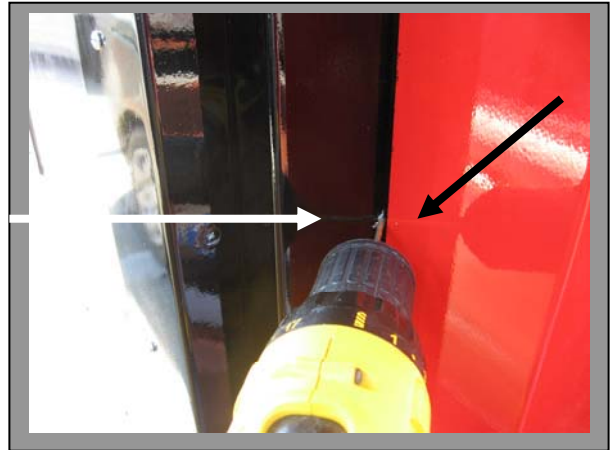
See Picture on the Front Page



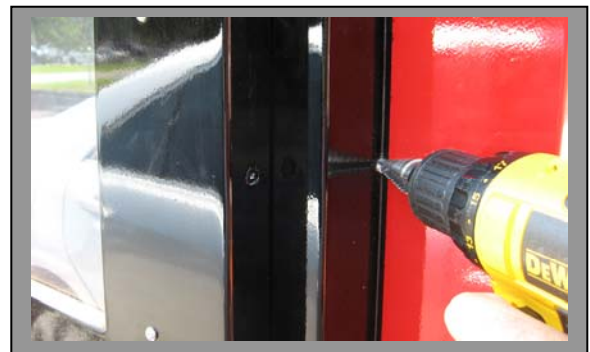
Steps for Installing the FlashRight Display (FRD) on a 2020 Tower Canopy OCU

1) Remove the back panel of the Canopy OCU and locate where you will be drilling through the Canopy OCU to run the wire in from the front.

2) Start by drilling a 1/8" hole center with the OCU Display Screen.



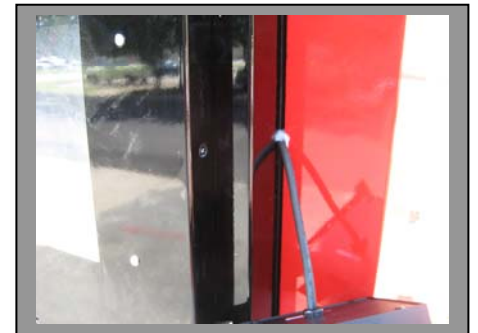
3) Use the #1 Step Drill and drill a 3/8" hole. **Note:** In some cases you may not be able to use the Step Drill and you will have to use a 1/4" drill bit, then a 3/8" drill bit.



Helpful Hint:

- There are about 3 or 4 different designs of the 2020 Tower Canopy OCU's. However, you will always be able to get the wire through to the inside, just be careful and think about your hole location.

4) After the hole has been made, run the FRD wire through the hole and inside the enclosure. Leave 6" of wire outside and let the FRD hang there temporarily.



Helpful Hint:

- On the inside, wrap the FRD wire around something (when there is 6" hanging outside) this will keep the wire from slipping back through the hole due to the weight of the FRD pulling on it.

5) Apply 100% Silicone around the wire and seal any space around the penetration.

Securing the FlashRight Display (FRD) to the OCU

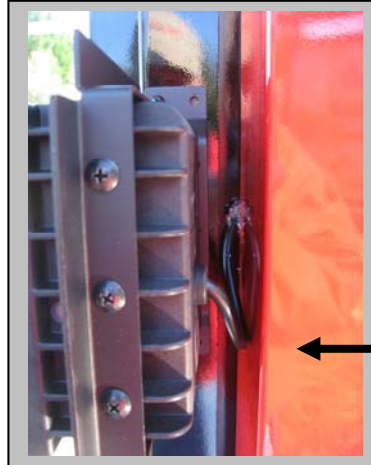
Helpful Hint:

- Have 2 or 4 #8 Self-Tap screws (supplied) in your hand & be able to access the Cordless Drill **before** you start step #6.

6) With (4) #8 Self-Tap screws in hand and the cordless drill, secure the FRD to the OCU.

*Align the FRD bracket with the front edge of the OCU edge.

Note: Secure the FRD by starting with the Top Front bracket hole then the Bottom Front bracket hole.



Note: Loop the wire down, it will fold down and create a "drip loop" and allow water to run off.



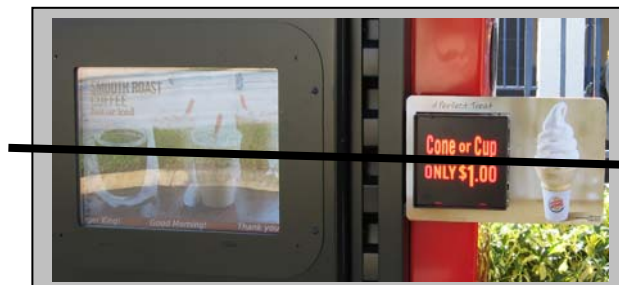
Note: In some installations you may have to drill a 1/8" pilot hole for the Back Bracket holes, due to a double thickness of metal on the OCU.

Warning:

Do not over tighten self-tap screws and break them off!



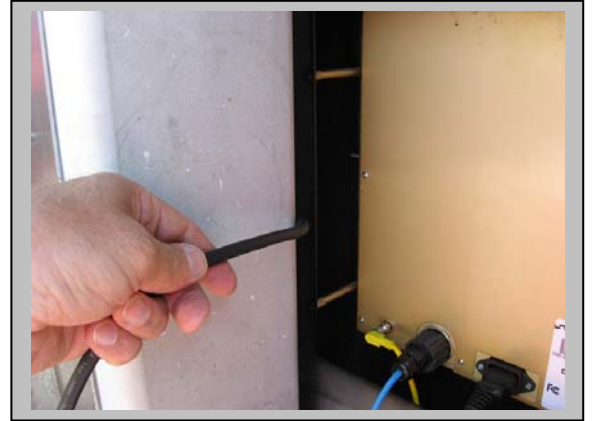
Note: Make sure to place the FlashRight Display (FRD) centered with the OCU Electronic Display.



Making the Power Connections for the FlashRight Display (FRD)

- 7) With the wire now in the OCU enclosure, strip back approximately 3" to 4" inches of the Display's cable jacket, then strip off 1/2" of the conductor covering on the RED & BLACK wires.

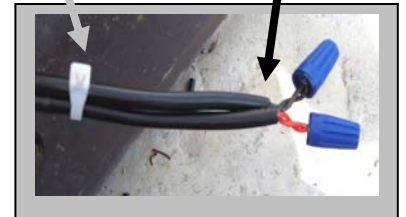
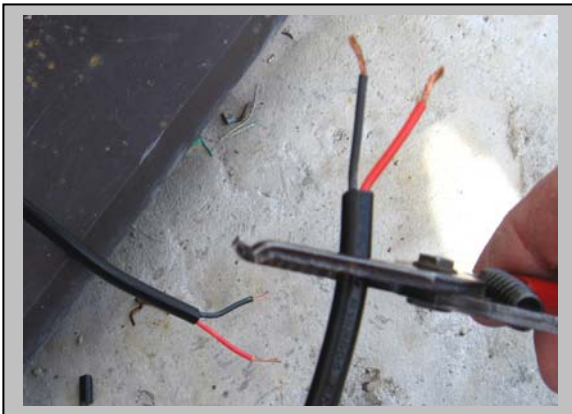
Do the same on the Power Supply cable and conductors, make the 12VDC connections.



***Connect the RED wires together and twist on a Gel Filled Connector. (supplied)**

***Connect the BLACK wires together and twist on a Gel Filled Connector. (supplied)**

Note: Once connections are made, align power cable jackets & secure together with wire tie.



Helpful Hint:

- Buy the IDEAL Wire Stripper (**W**) shown on the Recommended Tool page, it will make the wire stripping process very easy and once adjusted it will make a perfect cut everytime!

- 8) Plug the Power Supply into the existing OCU outlet. Or wire in the Plug Connector (supplied) to the OCU electrical circuit.



***The Display should be Flashing On & Off at this point.**

Neatly fold the extra wiring together and secure it with (supplied) Wire Ties.

Place the Power Supply and wiring out of the general access area.



WARNING: Make sure you connect to the circuit that powers the OCU and not to the circuit that powers the lighting in the Drive-thru area.

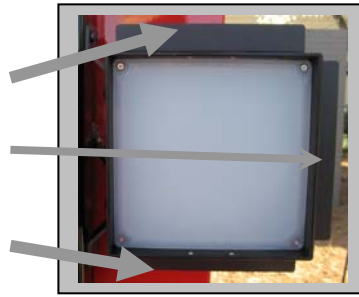
WARNING: All wiring should meet or exceed National Electric Code (NEC).



Install the 3 Velcro® Strips

- 9) Place the 3 Velcro® Strips on the 3 sides of the Surround Ring Bracket. **Center them** on the Top Side, Right Side and Bottom Side.

(In Kit “B”)



Note

Remove the film masking on Front & Back of Panel.

Install the Product Insert Panel and Surround Panel

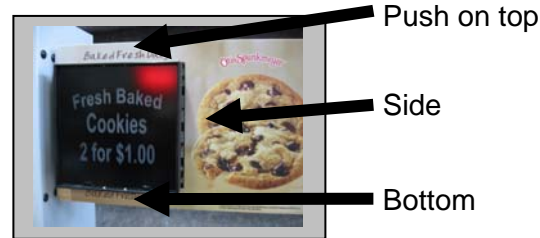
- 10) Snap in the Product Insert Panel by sliding it up behind the 2 bumps on the top, then push the bottom in until it “snaps” in place. Make sure all 4 corners are behind the 4 bumps.

(In Kit “B”)

Remove film from front & back of Insert Panel



- 11) Slide the Surround Panel over the Display and push against the Top, Bottom and Right Side where the Velcro® Strips have been placed. (In Kit “B”)



Troubleshooting Chart

<u>Problem</u>	<u>Possible Cause</u>	<u>Solution</u>
Display is not Flashing On & Off	There might not be Power where you plugged in the FRD DC power supply.	Make sure there is 110 volts of AC power where you plugged in the FRD DC power supply. (Use a test meter)
Display is not Flashing On & Off	The FRD 12 volt DC power supply could be bad.	Test and check if there is 12 volts DC power coming out of the FRD DC power supply. (Use a test meter)
Display is not Flashing On & Off	FRD Display could be bad.	After confirming power connections and power sources, send Display and Power Supply back to FlashRight Displays for exchange of BOTH parts.
Display is not Flashing On & Off	Confirm wire connections; RED to RED and BLACK to BLACK	After confirming power connections and power sources, send Display and Power Supply back to FlashRight Displays for exchange of BOTH parts.

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-OR-

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