



Astoria/K27

Installation Guide

Dunkin Floor-mounted
Solution

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ABOUT THIS DOCUMENT

This document provides instructions for the installation of the floor-mounted Astoria/K27 kiosk (and related equipment) at Dunkin' store locations.

DOCUMENT AUDIENCE

This document should be used by the following individuals:

- Installation technicians who are responsible for the installation of Acrelec K27/Astoria Kiosks and connection to the Dunkin' store network.
- Acrelec Support Professionals, for the purpose of verifying kiosk test and turn-up scenarios.

SUMMARY OF CHANGES

Date	Author	Revision	Details
07/09/2019	Brandon Satterwhite	1.0	Document creation
09/13/2019	Brandon Satterwhite	1.1	Removed detail around admin-level access to Verifone MX915 device.
11/04/2019	Brandon Satterwhite	1.2	• Added HDMI monitor and HDMI cable to Tools Required section. • Added Troubleshooting section (Appendix A) to address peripheral door adjustment and printer paper sensor adjustment. • Revised installation support contact information.
3/17/2020	Brandon Satterwhite	1.3	• Added Cat6 data cable and related tools to the Tools Required section. • Updated kiosk delivery footprint pictures. • Added new section to address data cabling run requirements • Relocated Install Bridge PC and Unmanaged Switch section • Updated installation support with new dial-in information

Where significant changes are made to this document, the version number will be incremented by 1.0. Where changes are made for clarity, ease of reading, or to update historical information where no change is made to the meaning or intention of this document, the version number will be increased by 0.1.

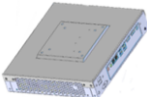
TOOLS REQUIRED

 Rotary Hammer Drill & Masonry Bit Set (to include: 3/8" or 9mm, 1/2" or 12mm, 5/8" or 15mm drill bits)	 A-frame Ladder (min 8 ft)
 Flat-head & Phillips Screwdrivers	 3/8 Drive Ratchet & Metric Socket Set
 Assorted Allen Wrenches (5/32)	 Hammer
 Hack Saw	 USB Keyboard & Mouse
 Measuring Tape	 Torpedo Level
 Box Cutter	 Shop Vacuum
 Electrical Tape	 Electric Extension
 Drywall Saw	 Portable HDMI Monitor & HDMI Cable (Optional, but recommended)

TOOLS REQUIRED (CONTINUED)

	
Cat6 Ethernet Cable	RJ45 Ethernet Cable Ends (Male)
	
Data Cable Crimper	Network Cable Tester

KIT CONTENTS

Quantity	Description	
1, or as ordered	Astoria/K27 Kiosk Assembly	
1 (per kiosk)	Astoria/K27 Kiosk Foot	
1 (per kiosk, optional)	Ceiling Pole Assembly	
1 (per kiosk)	Payment Terminal Bracket	
1	Bridge PC	
1	D-Link Unmanaged Switch	
1	12' NEMA 5-15 to C13 power cable extension	
2	3' Cat6 Ethernet Patch Cable	
1	Silicone Adhesive	
4	Floor Anchor	

PRELIMINARY STEPS

In order to allow for a successful installation, it is required that the installation team validate the following items upon arrival on site and prior to unpacking any kiosk equipment:

1. Verify with the Store Manager or designated site contact that the requisite 110v AC outlets are installed and are active.

- ✓ One 120v AC outlet per kiosk
- ✓ One 120v AC outlet for Acrelec Bridge PC
- ✓ One 120v AC outlet for D-Link Unmanaged Switch

For floor-mount kiosk installations, the AC outlets for the kiosks should be installed above the ceiling, or power lines should be running from conduit under the floor.

For wall-mounted kiosk installations, the AC outlets for each kiosk should be installed to the wall directly above (or below) where kiosk will be fixed to the wall.

If the requisite AC outlets have not been installed, the installation cannot proceed until this requirement has been satisfied.

- 2. Verify with the Franchisee or designated site contact whether the requisite Cat 6 data cable runs have been installed. In most cases, these will not be pre-installed and will need to be done by the kiosk installation team.**
- 3. Review and validate with the store manager or designated site contact the exact location where the kiosks are to be installed.**
- 4. Verify delivery of kiosk(s) and related equipment. If delivery has not yet been made, please check the delivery tracking information – it is possible that delivery has been scheduled to occur within an hour of your arrival on site.**

Typical Acrelec Kiosk delivery footprint:



- 5. Once delivery of the kiosk(s) and related equipment has been verified, examine the shipment with the Store Manager or designated site contact. Note any damages to the shipment that may be present. Take pictures of the damaged area(s).**

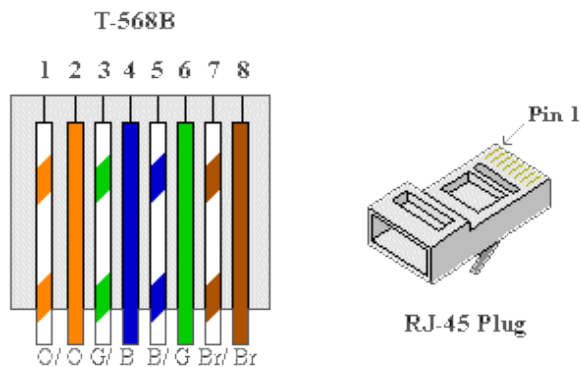
STEP 1: DATA CABLING INSTALLATION (IF REQUIRED)

In very limited cases, the requisite home data cable runs for the kiosk(s) will already be present. However, in most cases, installation of home data cable runs will be required.

- One Cat6 data cable run is required for each kiosk to be installed.
- Data cable run(s) are to be installed from the back office near the location of the Comcast/Cisco Meraki 24-port managed switch and end where the kiosk(s) will be located within the store:



- Each data run should have enough length (6'-8') to allow it to be connected to the kiosk through the ceiling pole or kiosk foot.
- Each data run must be terminated at both ends using a RJ45 male cable end according to standard T-568B pinout:

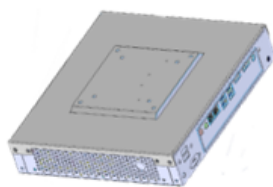


- For floor-mount kiosk installations, the data cabling should be installed above the ceiling, or should be running from conduit under the floor.

STEP 2: INSTALL BRIDGE PC & UNMANAGED SWITCH

The Bridge PC and D-Link unmanaged switch will be installed in the area of the store where the networking equipment (Comcast/Cisco Meraki Switch) is located. Typically, this will be in the Manager's office. Please confirm the location of the networking equipment with your on-site contact before proceeding.

The Bridge PC is a small headless (no monitor) PC unit that will be connected directly to the store's Comcast/Cisco Meraki switch via port 14. The D-Link unmanaged switch will be connected to the store's Comcast/Cisco Meraki switch via port 13. A power supply, cord, and data patch cable are provided for both devices.

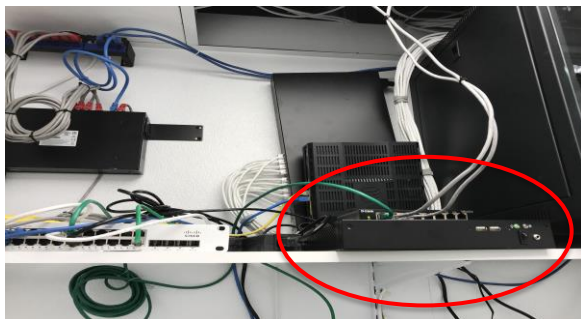


Bridge PC



Unmanaged Switch

Place the Bridge PC and D-Link switch on a free shelf (if available) or they may be stacked on top of or next to the Comcast/Cisco Meraki Switch:



Connect the included ethernet patch cable to LAN 1 of the Bridge PC. Connect the other end of the data patch cable from the Bridge PC to port 14 on the Comcast/Cisco Meraki Switch:



Connect the power supply to the 12V input of the Bridge PC and connect the power cord to the power supply. Plug the Bridge PC power cord into an available AC outlet, power strip, or surge protector. The Bridge PC should turn on automatically once connected to power:

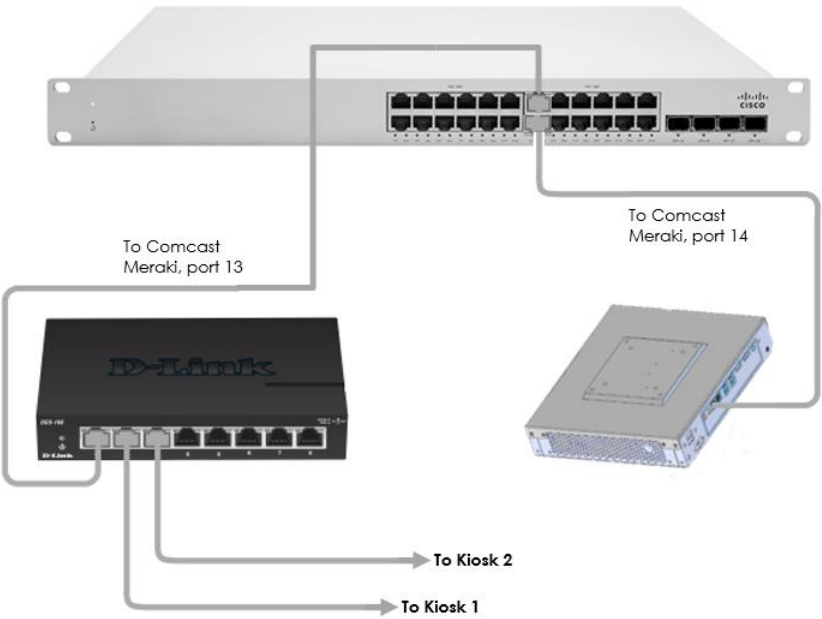


Connect the supplied power adapter to the D-Link unmanaged switch. Plug the power adapter for the switch into an available AC outlet, power strip, or surge protector. Verify the power indicator is lit on the switch:



Connect one end of the included ethernet patch cable to port 1 on the D-Link unmanaged switch. Connect the other end of this patch cable to port 13 on the Comcast/Cisco Meraki switch. Connect the ends of the data cable runs that were installed for each of the kiosks to the D-Link unmanaged switch starting with port 2.

Bridge PC & Unmanaged Switch Networking Diagram



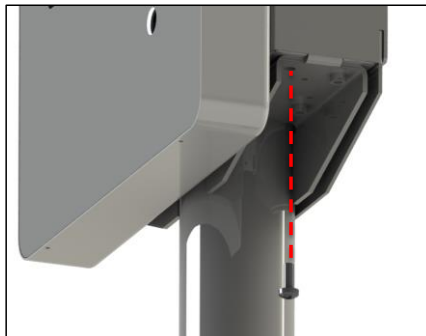
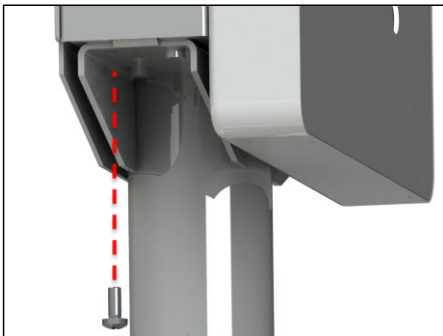
STEP 3: UNPACK THE KIOSK AND FIX TO FOOT

NOTE – THIS OPERATION REQUIRES 2 PEOPLE

Lift and position the kiosk onto the kiosk foot:



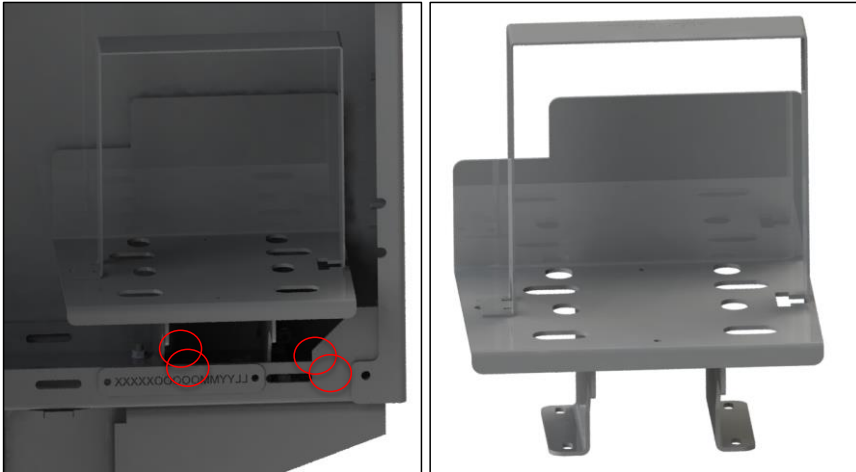
Fix the kiosk to the foot using 1 M08x020 screw on each side:



Using the kiosk key, open the lower door:



Unscrew the **4** nuts to remove the printer (not pictured) and printer support bracket:



Fix the kiosk on the foot using 6 M08x020 screws:

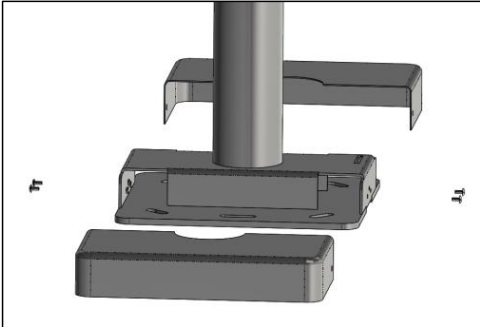


Once finished installing the kiosk on to the foot, re-attach the printer and printer support bracket. Close the lower door of the kiosk, ensuring the door latches completely.

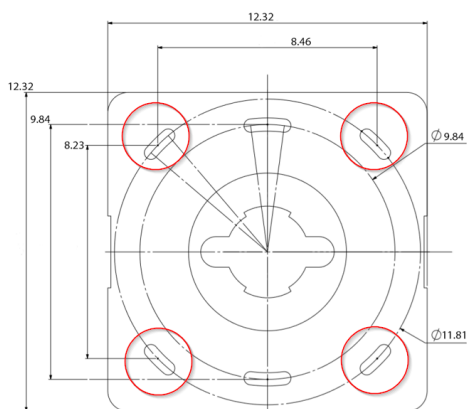
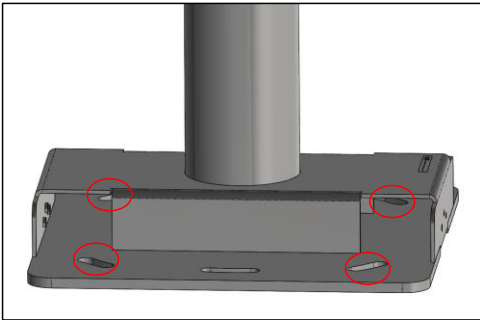
STEP 4: FIX KIOSK TO THE FLOOR

Mark the Fixation Positions

Remove the foot cover to access the foot fixation holes:



Locate the 4 fixation holes as well as the contour of the footplate. Using a pencil, mark the location for each hole on the floor:



Drill Fixation Holes

Remove the kiosk foot from its final position and locate the 4 drilling marks on the floor. Using a rotary hammer drill and masonry bit, drill the 4 holes for each foot:



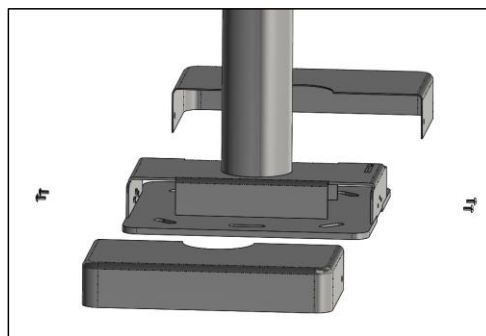
After all holes are drilled, install the provided drop-in anchors using a hammer to ensure that each anchor is flush with the floor:



Fix Kiosk to the Floor

NOTE: If power and data cables are fed from under the floor, you must run the wiring into the foot from the bottom prior to securing the kiosk to the floor. Please see Step 3B.

Move the kiosk back to its final position and install the provided anchor bolts and secure the kiosk to the floor. If necessary, use additional flat washers to ensure kiosk is level. Once kiosk is fixed to the floor, replace and secure the foot cover.



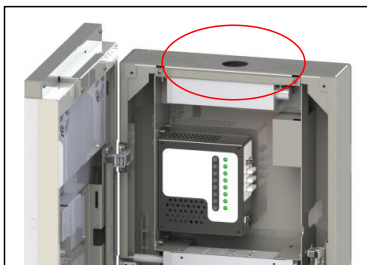
STEP 5A: FLOOR INSTALLATION (WITH CEILING POLE)

If the kiosk installation does not include the use of a ceiling pole, please proceed to the next step (5B). Otherwise, continue reading.

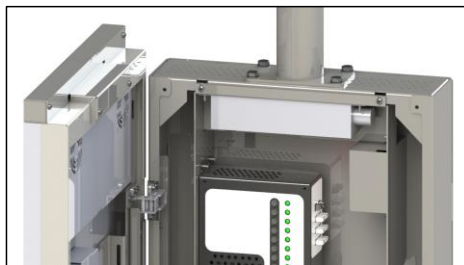
Note: The ceiling pole assembly is intended for use on drop-type ceilings with removable tiles. For store locations with an exposed ceiling, the ceiling pole assembly can still be used without the ceiling trim plate. It is the responsibility of store management to choose how to tie the ceiling pole into the exposed ceiling trusses – Acrelec does not supply these parts.

Attach Ceiling Pole to Kiosk

Remove the ceiling tile and place the pole on top of the kiosk according to the illustration below. Loosely tighten the provided bolts to hold the pole in place:



Location of the ceiling pole



Ceiling pole in position

Measure the Ceiling

With ceiling tile removed, take measurements of where the ceiling pole will pass through the tile. These measurements will be transferred to the ceiling tile. Additionally, measure 6 inches above the ceiling tile and mark the tube.



Alternatively, a laser level can also be used with the ceiling tile left in place and ceiling pole removed. Position the laser according to the cabling inlet on top of the kiosk.

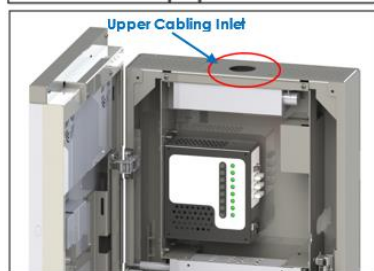
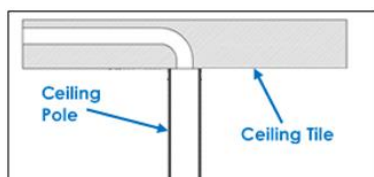
Transfer your measurements to the ceiling tile. Using a drywall saw, make a circular hole in the tile to allow for the ceiling pole to pass through the tile:



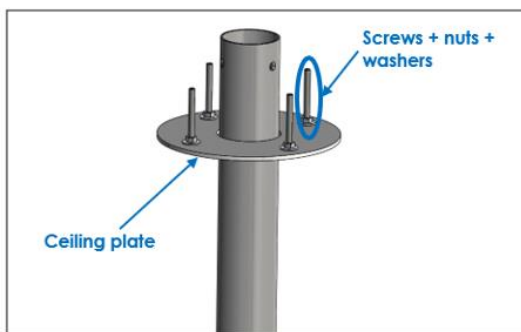
Remove the ceiling pole from the top of the kiosk by loosening the 4 bolts. Using a hacksaw, cut the excess material from the pole (length > 6 in above drop ceiling grid), if necessary.

Power & Data Cabling

For power and data connections installed to the ceiling, introduce power and data into the kiosk via the ceiling pole and the upper cabling inlet as illustrated below:



Ceiling Wiring

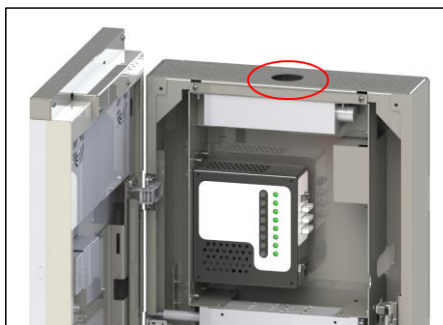
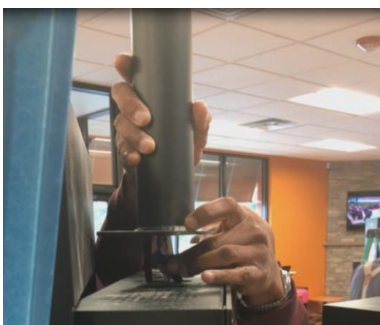


Ceiling Trim Plate Assembly

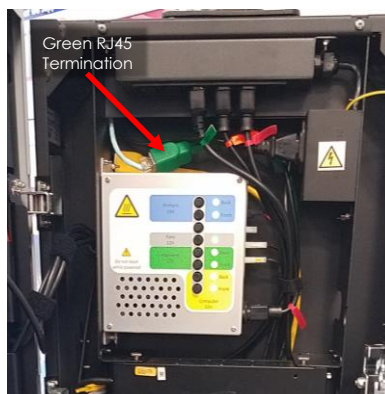
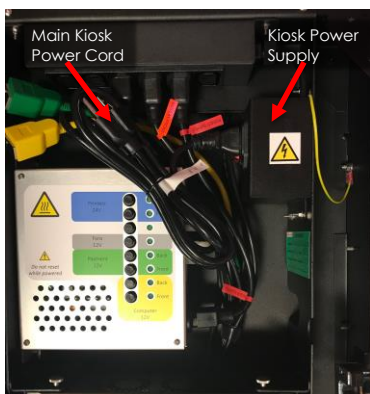
To open the upper part of the kiosk, use the key to open the lower door. Behind the lower door latch, locate the upper door latch release button. Press the latch release button firmly upwards to open the upper kiosk panel/door:



Slide ceiling trim plate into place on the ceiling pole and then run the tube through the cutout made in the ceiling tile. Take the ethernet cable from the ceiling and the female end of the included 6-foot AC Power Extension Cord and feed both through the top of the ceiling pole down into the kiosk via the upper cabling inlet:



Connect the ethernet cable to the kiosk's Green RJ45 termination. The female end of the AC power extension cord will connect to the male end of the kiosk's main power cord:

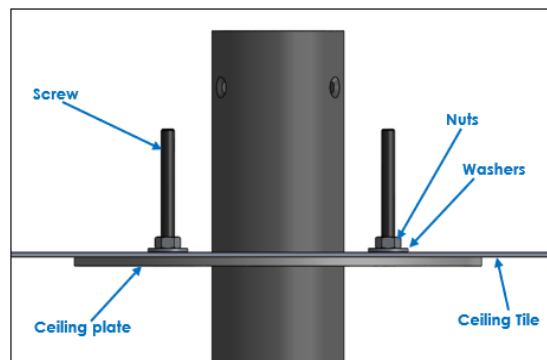


Reattach the ceiling pole to the top of the kiosk using the M13 bolts:



Ceiling Trim Plate Installation

With the ceiling pole secured to the top of the kiosk, reposition the ceiling tile back into place on the ceiling grid. Slide the ceiling trim plate up the ceiling pole and use a level to make sure the ceiling pole is plumb. Secure the ceiling trim plate to the ceiling tile using the provide 5/32 Hex Screws, nuts and washers:

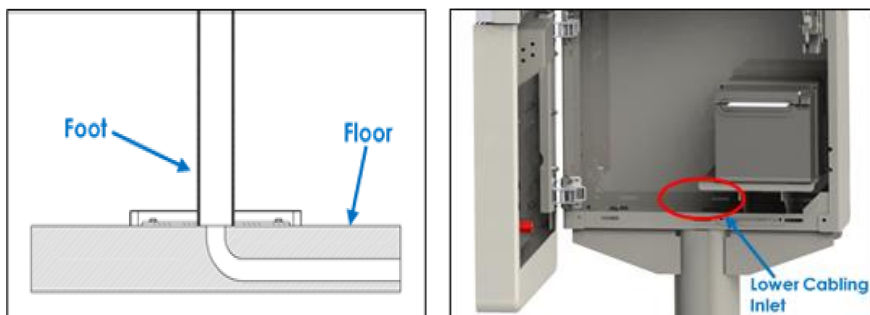


Above the drop ceiling, connect the AC power cord to the AC outlet make sure to coil and excess cord neatly using Velcro or zip ties. Do the same for and excess data cabling above the ceiling.

STEP 5B: FLOOR INSTALLATION (WITHOUT CEILING POLE)

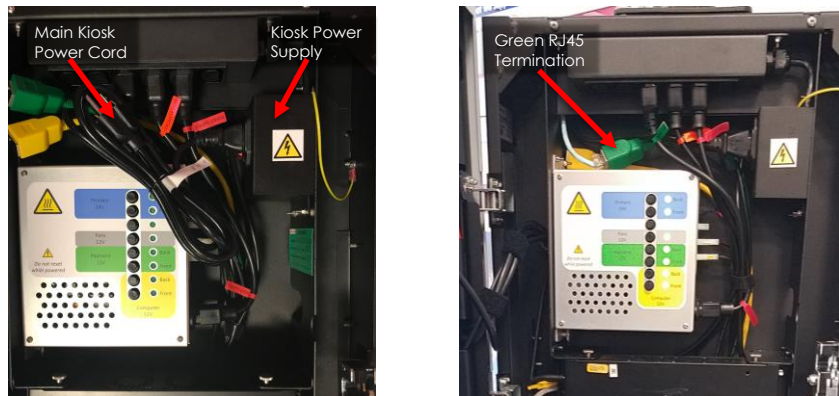
Power & Data Cabling

For power and data connections installed to the floor, introduce power and data into the kiosk via the foot and the lower cabling inlet as illustrated below:



Floor Wiring

Connect the ethernet cable to the kiosk's Green RJ45 termination. The female end of the AC power extension cord will connect to the male end of the kiosk's main power cord:

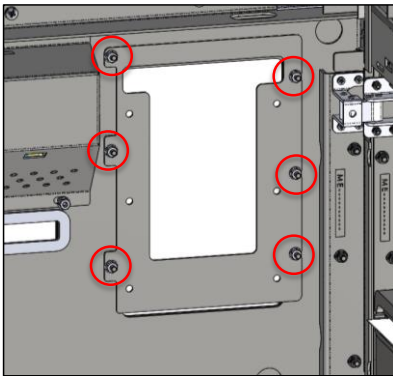


Once power and data cabling has been completed, continue fixing the kiosk foot to the floor as detailed on Page 14.

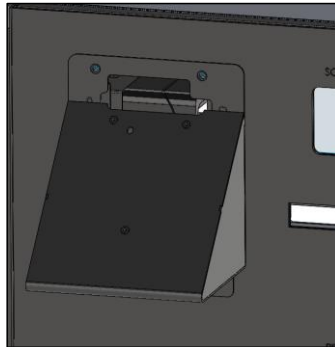
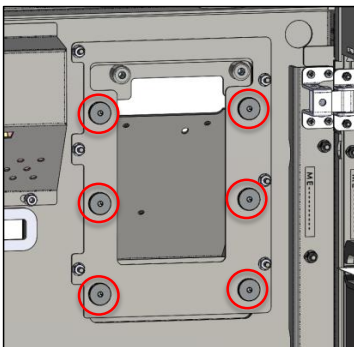
STEP 6: PAYMENT TERMINAL INSTALLATION

NOTE: the Verifone MX915 payment devices are not supplied by Acrelec and will arrive at the store location separately prior to or on the day of kiosk installation. Please speak with the on-site contact to obtain the payment device for each kiosk.

Fix the mounting plate to the kiosk using 6 x M04 flange nuts:



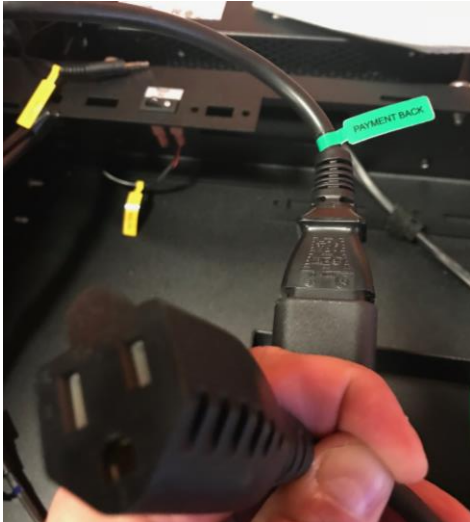
Fix the payment terminal bracket to the mounting plate using 6 x M04 knurled nuts:



Connect the payment device 12v power supply to the payment device COMM Module:



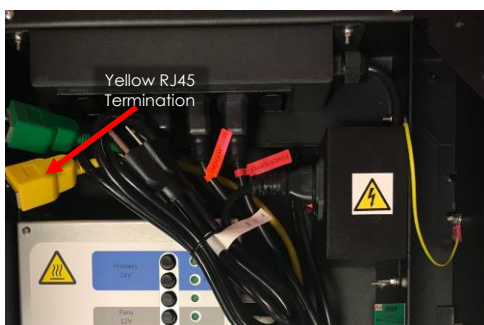
Plug the power supply into the NEMA-5 terminal attached to the cable labeled "Payment Back":



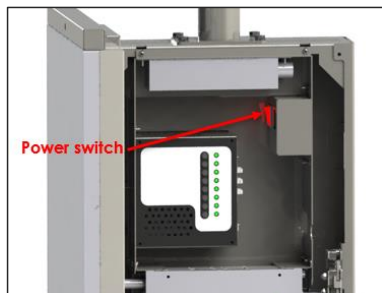
Connect the pre-run green patch cable to the port labeled "Ether 1" on the payment device COMM Module. Connect a separate ethernet patch cable (included) to the port labeled "Ether 2" on the payment device:



Connect the other end of the patch cable connected to port "Ether 2" to the yellow RJ45 termination at the top of the kiosk. Provide neat cable management:



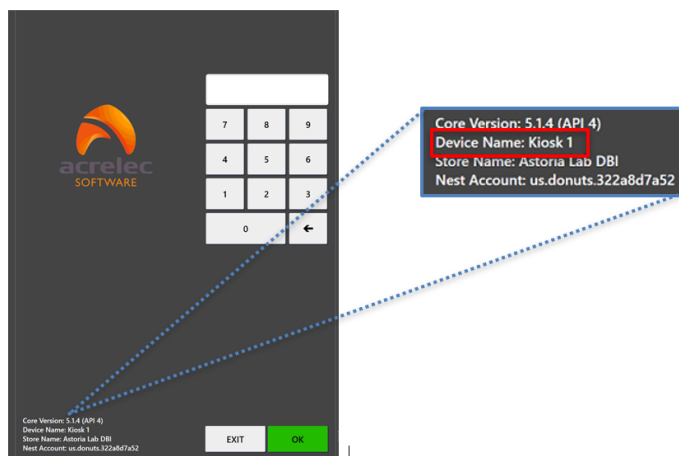
Turn on the kiosk's power switch and let the kiosk boot up:



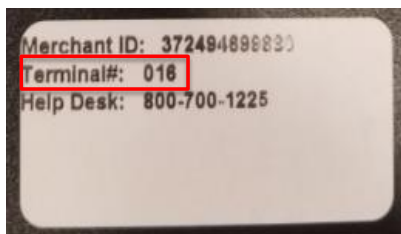
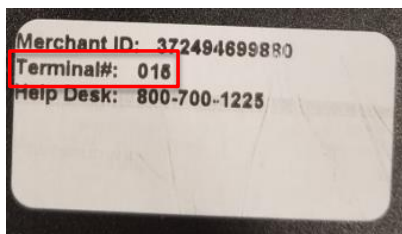
After the device has finished its boot sequence, you should be presented with the Acrelec Admin Panel on the kiosk screen.

If you are not presented with this screen, rapidly tap the upper left-hand corner of the screen until the Acrelec Admin panel appears.

Once at the Acrelec Admin Panel, take note of the "Device Name" value at the bottom left corner of the screen:

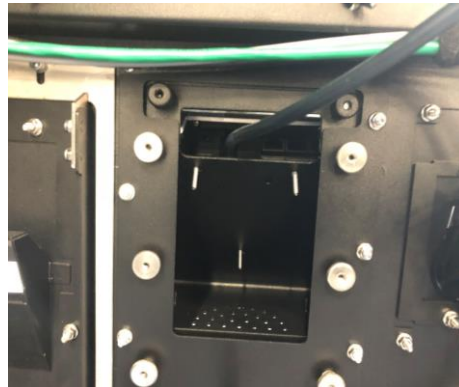
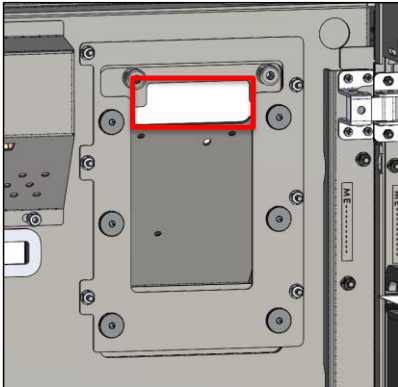


On the bottom of each payment terminal device, take note of the Terminal ID (TID) # of the device. The TID # will indicate the specific payment terminal to install on Kiosk 1 and Kiosk 2:



TID #15: Install to Kiosk 1

From the inside of the kiosk, feed the payment terminal device's multiport cable through the square opening and out through to the front of the kiosk:



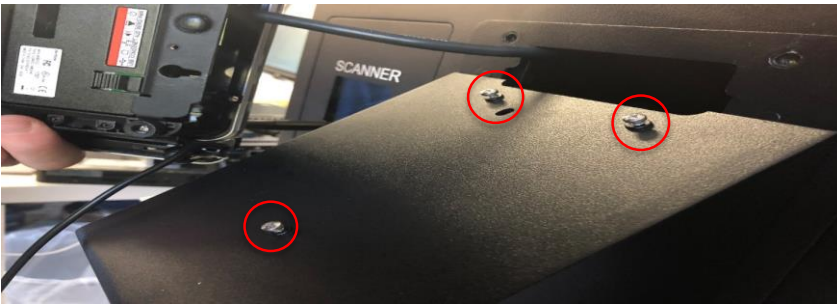
Once the multiport cable has been pulled through the front, connect the cable to the interface:



Connect the interface to the payment terminal device:



Install the payment terminal device to the kiosk by fixing 3 x M3 screws to the payment terminal bracket – leave approximately 2 thread lengths exposed to allow for the device to slide on. Place the payment terminal device on to the 3 screws and slide the device into place:

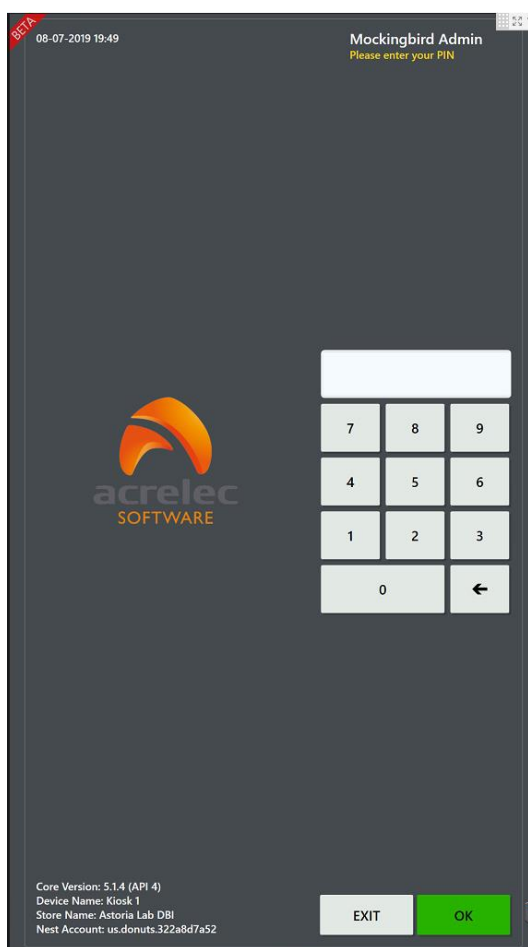


STEP 7: DEVICE CONNECTIVITY

Verify Kiosk Connectivity

The following measures should be completed for each kiosk installed.

Access the kiosk's Admin Panel by tapping the upper left-hand corner of the touch screen until the Admin Panel appears:



A PIN is required to access the Admin Panel. This PIN is based on the date and time shown in the upper left-hand corner of the screen.

NOTE: the date and time are expressed as follows:

DD-MM-YYYY HH:MM

The PIN is derived from the devices current date and time in the following manner:

- Sum of the hours (H+H)
- YY
- MM
- DD
- Sum of the minutes (M+M)

Using the date and time shown in the figure below, the PIN would be 1019070813:

08-07-2019 19:49

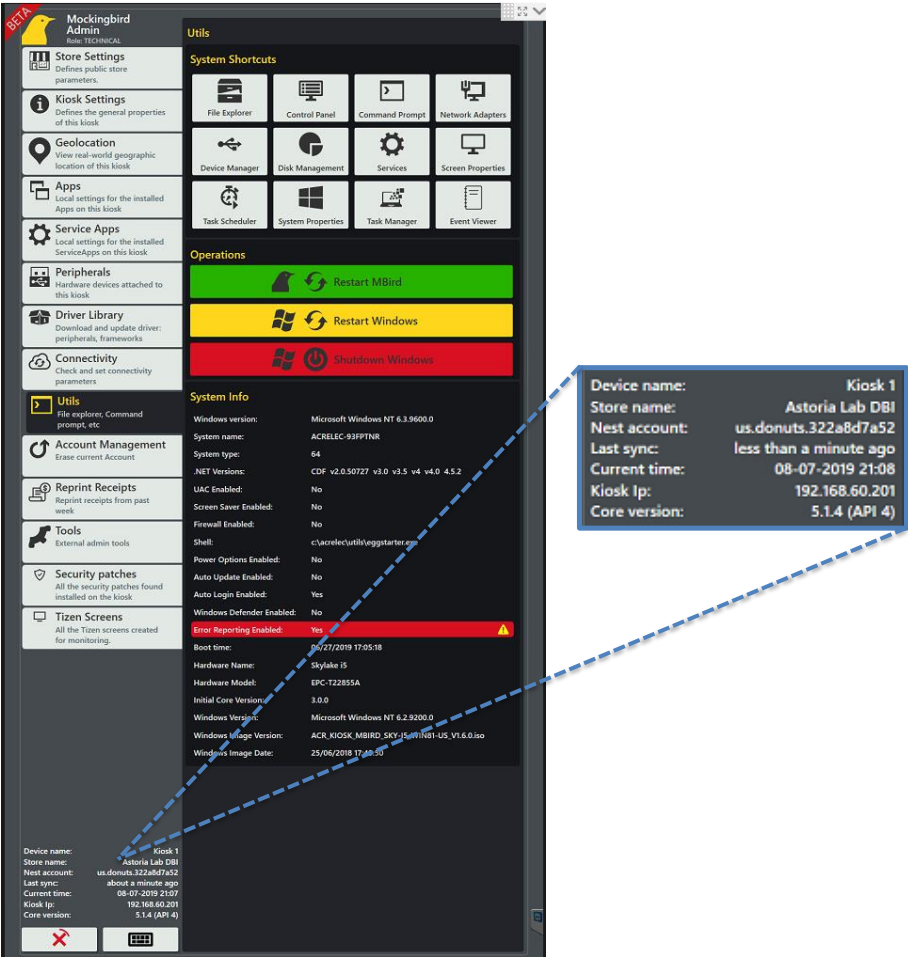
- Sum of the hours (1+9) = 10
- YY = 19
- MM = 07
- DD = 08
- Sum of the minutes (4+9) = 13

Key the PIN into using the number pad on the screen. When finished, tap the OK button:





Once you have successfully entered the kiosk's Admin Panel, verify that the device IP is configured properly. The relevant information can be found in the bottom right-hand corner of the kiosk screen:



The kiosk IP should be set according to the following scheme:

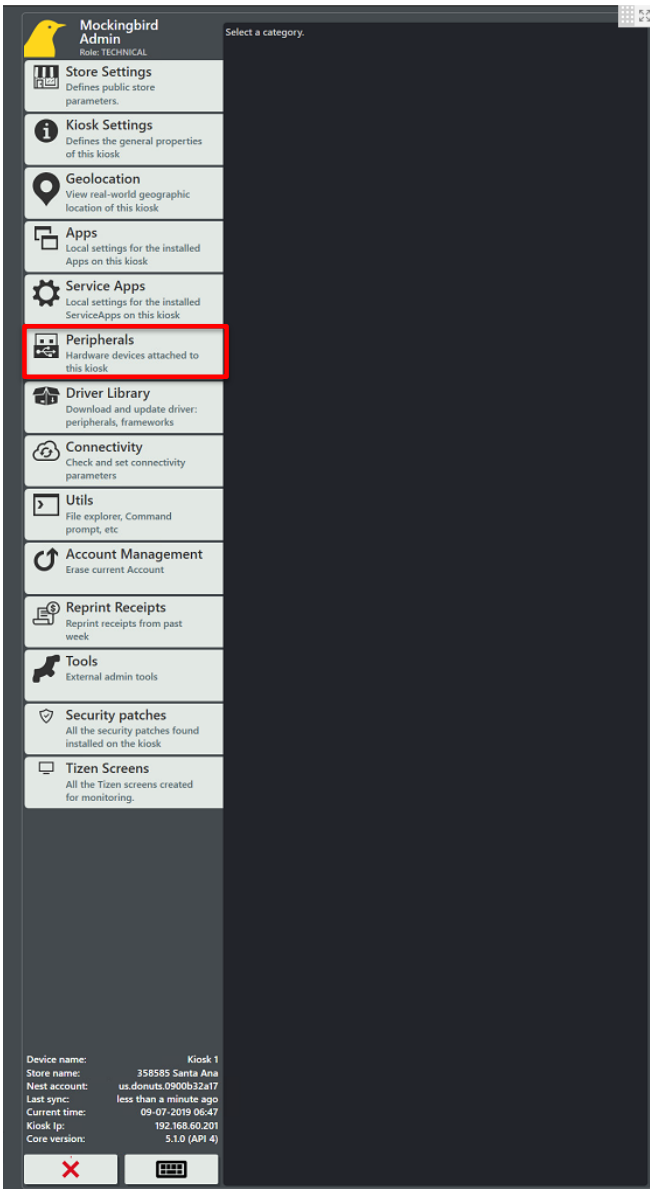
Device Name	Kiosk IP
Kiosk 1	192.168.60.201
Kiosk 2	192.168.60.202
Kiosk 3	192.168.60.203
Kiosk 4	192.168.60.204
Kiosk 5	192.168.60.205

For each additional kiosk, the final octet of the IP address would increase by 1 digit (.206, .207, etc.).

Verify Payment Terminal Connectivity

The following measures must be completed on the payment terminal for each kiosk installed.

From the kiosk's Admin Panel, select "Peripherals" from the options on the left:



Select the tab labeled "Payment 1" at the top of the screen. Using the dropdown menu to the right of "Select Payment", set the value as "US_VERIFONE_MX version 1.0.5.0". The payment device details will appear on the screen. Note the value given for "Device IP Address":

The screenshot shows the Mockingbird Admin interface. On the left is a sidebar with various settings categories. The main area is titled 'Payment 1' and contains configuration options for the payment device. The 'Device IP Address' field is highlighted with a red box, showing the value 192.168.60.131. Other fields include 'Device TCP Port' (5015), 'Device Secondary TCP Port' (5016), 'Registry Code' (1234), 'Dwell Time' (5), 'Signature Threshold' (2500), 'Bank User Data' (011/71/06/PPayCL/), and 'Payment Attempts' (5).

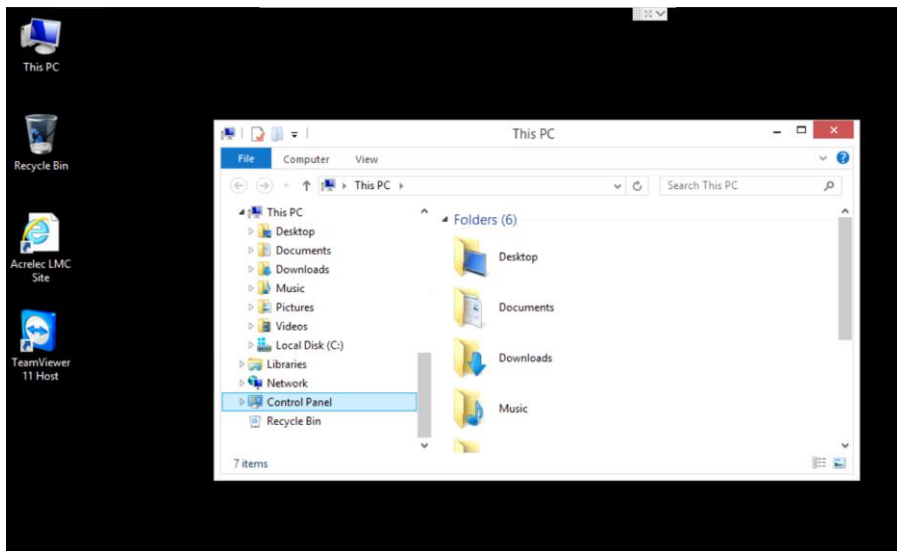
Validate that the Verifone Device IP Address field is set according to the following scheme:

Device Name	Payment Device IP Address
Kiosk 1	192.168.60.131
Kiosk 2	192.168.60.132
Kiosk 3	192.168.60.133
Kiosk 4	192.168.60.134
Kiosk 5	192.168.60.135

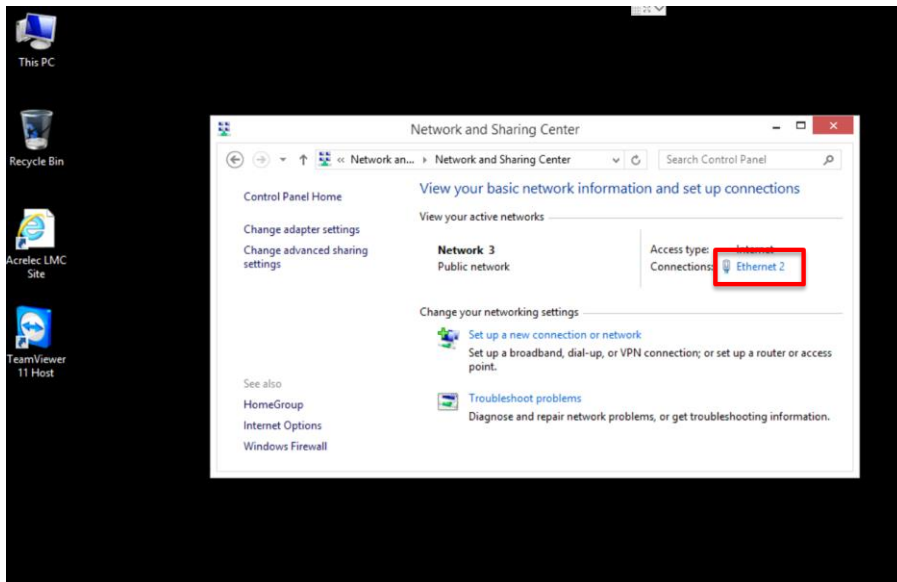
Verify Bridge PC Connectivity

NOTE: This step must be completed with the assistance of Acrelec Level 2 Support

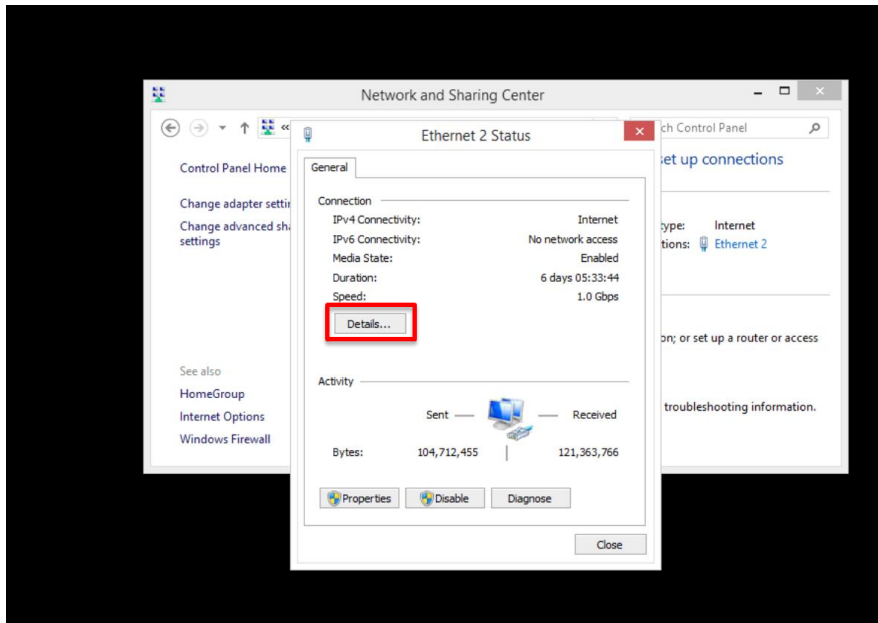
Remotely access the Bridge PC. Double click the "This PC" icon on the desktop and access the Control Panel via the menu on the left:



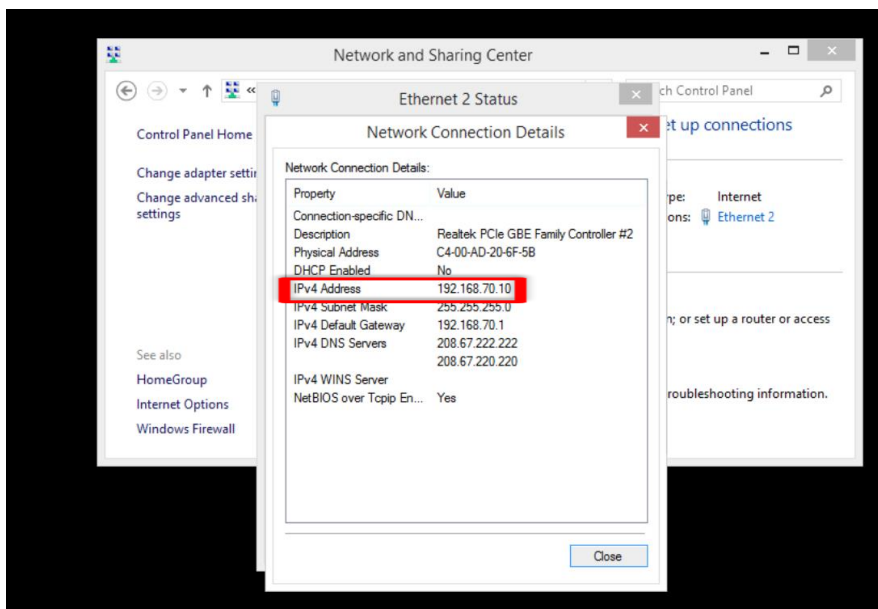
Under the Control Panel, access the Network and Sharing Center. Click the value shown for "Connections". This will typically be "Ethernet 1" or "Ethernet 2":



From the Ethernet Status window, select the "Details" button:



The "Network Connection Details" dialog box will open. Verify that the value **192.168.70.10** is shown for IPv4 address:



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APPENDIX A: TROUBLESHOOTING

Kiosk Peripheral Door Alignment & Adjustment

The kiosk's peripheral (bottom) door will sometimes present difficulty in closing. In these cases, the following steps should be taken to ensure the door's latch pin and locking mechanism are in proper alignment and adjustment.

The latch pin should be aligned with the latch on the locking mechanism. The image below on the left shows an example of a latch pin that is misaligned (too far below) with the kiosk locking mechanism. The latch pin should always be positioned as far upward on the door as the bolts will allow. To adjust, loosen the two screws shown in the image below on the right to move the bracket upward, then secure in place.



Misaligned latch pin (too far below locking mechanism)



Adjustment of latch pin

The locking mechanism should be adjusted so that the two bolts shown in the image below are positioned as far back as possible to ensure the mechanism itself is positioned completely forward so that when the door closes, the lock will latch easily.

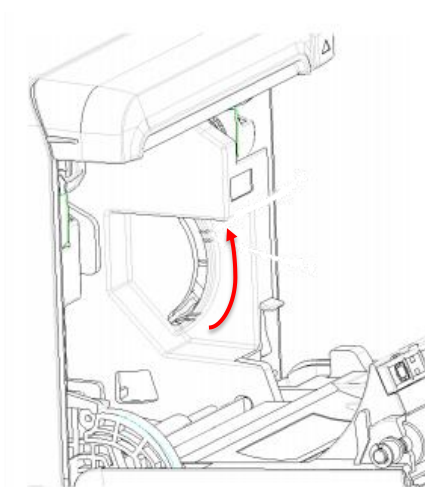


Adjustment of locking mechanism

Kiosk Printer Paper Sensor Adjustment

The kiosk's printer is equipped with a sensor to detect when the current thermal paper roll is nearing its end and should be replaced. To ensure optimal functionality, proper adjustment of the sensor must be maintained.

The printer paper near end sensor is located inside the printer on the right-hand side. To maintain proper adjustment, ensure that the sensor dial is set at the highest upward position, as shown by the red arrow in the figure below.



Printer paper near end sensor positioning

INSTALLATION SUPPORT CONTACT

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USA

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77400 St-Thibault des Vignes
France



DUNKIN' INSTALLATION CHECKLIST



Store #		Installation Date	
Store Address		Installation Contractor	
		Team Leader Name	
Store Phone #		Description of Work	

Have the kiosks been installed according to location and height specifications as outlined in the "Kiosk Installation Kit" documentation?

☐ Yes☐ No

Please note the type of installation configuration that was completed for each kiosk:

Kiosk #1

☐ Wall-Mount☐ Floor-Mount

Kiosk #2 (if applicable)

☐ Wall-Mount☐ Floor-Mount☐ N/A

Kiosk #3 (if applicable)

☐ Wall-Mount☐ Floor-Mount☐ N/A

Have the Bridge PC and Acrelec unmanaged switch been installed in the Manager's office?

☐ Yes☐ No

Has installation of two (2) Category 6 (Cat6) cable runs (1 run per kiosk face) been completed?

☐ Yes☐ No

Has installation of one (1) power outlet per kiosk face been completed? If this was completed prior to installation, check "No".

☐ Yes☐ No

Are the Kiosks, Bridge PC, and Verifone terminals communicating as outlined in the "In-Store Network Install Configuration" document?

☐ Yes☐ No

Have photographs been taken of all installed hardware and associated wire runs?

☐ Yes☐ No

Once installation was completed, did you call Acrelec to confirm network connectivity and the successful completion of one test transaction for each kiosk?

☐ Yes☐ No

Did you provide the all kiosk keys to the shift manager on duty?

☐ Yes☐ No

Did you ensure that site clean-up was completed prior to leaving?

☐ Yes☐ No

Have the serial numbers been recorded for each device installed at the store?

☐ Yes☐ No

Kiosk #1	Serial Number	
Kiosk #2 (if applicable)	Serial Number	
Kiosk #3 (if applicable)	Serial Number	
Bridge PC	Serial Number	
Acrelec Unmanaged Switch	Serial Number	
Verifone Terminal #1	Serial Number	
Verifone Terminal #2 (if applicable)	Serial Number	
Verifone Terminal #3 (if applicable)	Serial Number	

Store Shift Manager Details (PLEASE PRINT CLEARLY)

Store Shift Manager Name :

Store Shift Manager Phone Number :

Store Shift Manager Email Address :

Store Shift Manager Comments :

Installation Team Leader Signature :		Store Shift Manager Signature:	
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