



EMV-Installation

 Sayali Kothari
Contractor

Purpose

This document will detail all steps to install the physical EMV unit onto the kiosk. This does not include any Work Order or configuration steps but only the physical install. As a supplement, refer to the [EMV Installation Contingency](#) document for kiosk variations that may require specific extra steps.

Definitions

N/A

Tools and Parts

- Drill
- 1/4" Drill Bit (#259097)
- High Speed Step drill bit (#259096)
- Center Punch (#259098)
- Safety Glasses (#259251)
- De-Burring tool (#259274)
- Gloves (259272)
- Ear Plugs
- Sharpie Marker
- 1/8" & 5/64" Allen Wrenches
- 1/4" Nut Driver
- Phillips Screw driver
- Masking Tape

- Cable ties
- Heat Gun (to remove stickers)
- Electrical tape
- An EMV w/Cable Kit in a tamper bag and Bracket Kit

Procedure

1. Power down the PC gracefully by tapping the PC power button once. The button will be located on either the front or back of the PC.

2. Shut off the UPS by holding down the UPS power button for about 1 second until it first beeps and then release it.
3. Place the kiosk in a safe state to work on the machine so that nothing interferes with the work area.

****NOTE**** This is a USB device and all software required to be on the kiosk should already be installed. You **may** leave the kiosk powered on and go into HAL Tester to home the Picker. This will position the Picker at the very top and clear of any falling metal shavings.

4. Remove the stickers indicated below. Clean the face as best you can to remove all residue. The CCR and Skimmer Blocks can be removed first to better access the **redbox™ Card Guard** sticker in tight situations (next steps.) Heating from the back side of the door will cause the glue to soften and release easier.

5. Unscrew the CCR and re-insert the screws into the reader for safe keeping in case they are needed for other steps. Cut all wire ties and remove tape securing the CCR cabling and disconnect the USB extension cable to remove it from the kiosk. Place the CCR aside for now. Remove the old gasket material from the CCR if it's stuck to the kiosk. The heat gun may be required to release it.

6. Remove the two Skimmer Blocks.

****NOTES**** When removing the Skimmer Blocks, be aware that the small O-rings that seal to the door shell can fall off. These need to be retained for reinstall or you will have to source some locally until a small inventory of spares can be supplied.

The Skimmer Block screws will not be needed. Some 17" touch screens will need to be removed to access some of the Skimmer Block screws. Refer to the [EMV Installation Contingency](#) document for assistance.

7. Position the EMV bracket in place with the 90 degree bend to the left and with the studs in the CCR mounting holes. **Lightly** screw the 2 small keps nuts onto the bracket to hold the EMV bracket in place. You may also use tape to hold it in place while installing the keps nuts if your arms cannot reach.

****NOTE**** Normal installation of this bracket will have the 90 degree bend closest to the vend door. This positioning is only meant for using the bracket as a template to mark the 2 holes that need to be drilled.

8. Mark the two holes at the blue arrows below with a Sharpie. Remove the bracket once done marking the holes. Thoroughly "filling" the hole with the sharpie will allow you to find the center of the hole when using the punch.

9. Use the center punch tool to mark the center of each sharpie circle. It may take several hits on each spot to create a deep mark for the drill to stay centered.

10. If not already out of the way, move the picker up to the top of the kiosk and secure with a wire tie around the belt. This will keep the shavings produced from drilling from possibly getting in the picker assembly.

11. Apply masking tape to the face and back side of the door, and tape the open end of the bag that the bracket came in to the front of the kiosk as shown below to capture as many chips as possible during the drilling process. The below shows a kiosk partially drilled with the positioning of the tape/bag. Making a shelf with the tape on the back side should catch most of the shavings.

12. Check that the EMV is not tampered/locked/damaged. Prior to drilling any holes, you will want to confirm that the EMV is working and can be successfully installed. Once the larger hole is drilled, the old CCR will not be able to be swapped back in for failed EMVs and the kiosk would be down. This will be especially important if this is your last EMV on hand. Test it first!

12.1. Using the supplied USB cable, plug the EMV into your tablet to confirm that it initializes and displays the redbox message. This means that the unit works, has been configured properly and can be installed.

12.2 If it states **This Lane Closed**, the unit will not be installed and will need to be returned following the RMA process as it was not configured properly.

12.3 Any red screens/buttons or alerts showing an issue would mean that the unit needs to be RMAed

13. *Safety First!* Use your gloves, safety goggles and ear plugs when drilling. Metal shavings are sharp and can fly out when least expected. It's also going to get very

loud when drilling with the step bit. It's mandatory that Personal Safety Equipment be used when drilling, deburring and checking the condition of the holes.

14. Drill through the face using the $\frac{1}{4}$ " drill bit in the two locations shown by the blue arrows below. Keep the door propped open with a door prop or other item (a tool bag in this case.) **Go slow and hold the door firmly so that the drill bit stays centered.**

15. Drill through the lower of the two holes using the high speed step bit. **Go slow so that the bit does not walk out of place by large amounts.** A small amount of movement ($\frac{1}{8}$ " or less) is OK but you will need to pay attention that it is not shifting much. When finished the final hole size should be 1" (the largest step on the ABE bit.) One helpful tip is to start drilling the large hole from the front and then alternate to the back side of the door using the next step in the bit to help clear the burrs as the hole size increases and stay centered until the last step. The upper $\frac{1}{4}$ " hole will remain untouched – do not drill that one any larger. When finished, the holes should look as shown below. We are not using a rubber grommet during this install so the holes should be cleared of all burrs prior to final installation. Use the deburring tool from both the front and back of the door on both holes to thoroughly remove any burrs. **Be careful when checking for burrs as they can easily cut you. Use the Gloves if you touch the holes.** Remove your tape and clear the kiosk area of all metal chips when done drilling. Your small shop-vac should work well for this step.

16. Scan the EMV serial number into the WO System.

16.1. You will need to enter a WO Task as normal and, when you get to the Resolution dropdown, you should select "Replaced" to trigger the next screen to pop up.

16.2 Select "**EMV**" in the dropdown for Removed Part Category. Scan the serial number from the back of the EMV unit into the Serial Number field. Scan the RMA barcode into the RMA barcode field. Press **Next** to continue.

16.3 Remove the EMV from its packaging but leave the face-protecting plastic film on and scan the lower of the 2 large serial numbers off the **back**. It may be necessary to cover the upper number with your thumb to force the scanner to grab the correct barcode.

16.4 Begin the Part(s) Installation pop-up. Scan the serial number from the back of the EMV unit you are installing into the Serial Number field. **Do not complete this pop-up until after new EMV unit is install and you have verified that it is operational.**

Do not continue with your WOS entry until the new unit has been installed and you have verified that it functions.

17. Install the EMV onto the bracket using the 4 supplied 4mm x 8mm flat head screws. It should look as shown with the 90 degree bend to the right.

18. Install the EMV assembly to the door. First, lightly secure the bracket to the door using the two 4-40 KEPS nuts supplied. Tape the **bracket** to the door securely until the keps nuts are installed if your arms cannot reach around the door, just be sure that it is firmly attached to keep it from falling.

****Caution**** Do not over tighten the keps nuts to prevent damaging the studs on the bracket.

19. Install the Skimmer Blocks using the new 10-32 x .625" button head screws. Be sure the O-rings are in place as required. Leave the lower left (as seen from the back) Skimmer Block screw off until attaching the cable clamp as shown in the next step. These screws can be tightened down quite a bit and then the keps nuts can be tightened **just a little** bit to be snug again. You should still be careful not to

break the studs for the keps nuts. You will check the tightness of the screws a couple more times in this document as the gasketing foam compresses.

20. Plug in the USB cable to the back of the EMV through the large hole and attach the cable clamp to the bottom left Skimmer Block screw location as shown and snug it down firmly.

21. Plug the USB cable from the EMV into the extension located in the grey Panduit channel on the door. Tape the connection with electrical tape to hold the ends together. This will give you an idea on the slack you have to route and tie the cable safely.

22. Wire tie the cabling to the metal strip with the tie holes on the door.

****NOTE**** The pic below shows the wire routing farther to the right than you may be able to do based upon how much slack you have. This is why you should connect both ends to determining the final routing and cable tie locations.

23. Snug the 4 Skimmer Block screws down a 2nd time and take the "slack" out of the keps nuts by tightening them down slightly.
24. Push the cable bundle back into the Panduit channel near the top and install any wire ties as needed to keep things clear of the picker.
25. Some kiosks will have cable tie mount(s) already installed at the bottom of the channel to tie the cable to the door. This is so that the connection does not experience any tension as the door is repeatedly used. It is required that at least the bottom mount be used to secure the connection together and off the bottom of

the door. Install that one as needed. If not tied to the door, the connection could come loose over time. For outdoor kiosks, the bottom of the door is where the Vend Door drain leads and will result in a corroded connection if not secured in the Panduit channel.

26. If you had to cut the main door split loom tie to allow routing the USB extension up appropriately, you will need to retie it correctly. Close the main door as much as possible while you tuck/push the loom towards the door and install a new cable tie on the cable clamp attached to the stud at the bottom of the door.

You may also need to adjust the metal cable clamp for the other end of the loom on the inside of the kiosk to keep the loom tight to the side when the main door is closed. The picker may come into contact with the loom when down at deck 8 so keep this tucked in as far as possible.

27. Power on the kiosk and make sure that the EMV powers on correctly. The kiosk should already have the needed software to work with the EMV reader. It will initialize in around 20 seconds and then will state **redbox**.

28. Perform a test transaction to cause the EMV to activate on the back end. We are only doing swipe right now so that is all that will be tested. This is a single-sided reader with the stripe facing left.

29. This should change the status of the EMV *on the back end* to **activating** but is dependent on comms to finish the activation process. It can still work for transactions in the activating mode until it communicates with the servers. When activation is complete, it will change to **activated** in the back end. The display should always read **redbox** even during the back-end activation process as this indicates that the EMV has been configured correctly.

30. Remove the protective film from the face of the reader if you have not already done so.

31. Firmly snug down the Skimmer Block screws one final time and lightly tighten the keps nuts.

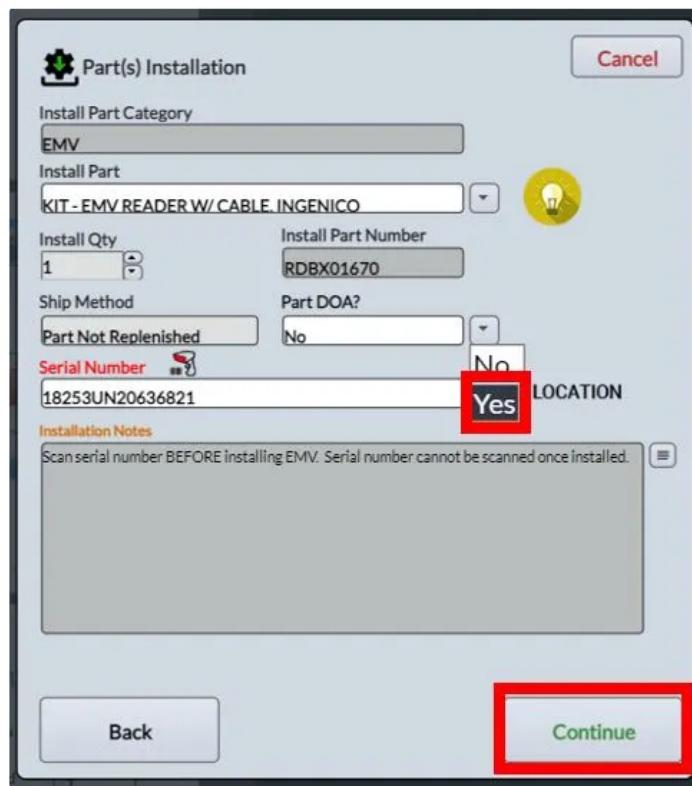
32. Tape the holes on the back of the kiosk.

32.1. To avoid a potential issue with water being pulled into the EMV, it is necessary that the 2 drilled holes on the door be sealed after the installation is complete but in a way that will still allow access if needed. Both holes are required to be drilled for installation and access but tape can be used to create a strong seal to the door. Use the Gorilla brand duct tape from Parts to tape the openings as in the pic below.

****NOTE** THIS IS ONLY FOR OUTDOOR KIOSKS*****
The tape at the bottom side around the wiring is stuck to itself and completely sealing to the door of the kiosk. It is required that there be a complete seal to keep any water from being pulled into the kiosk through the EMV.

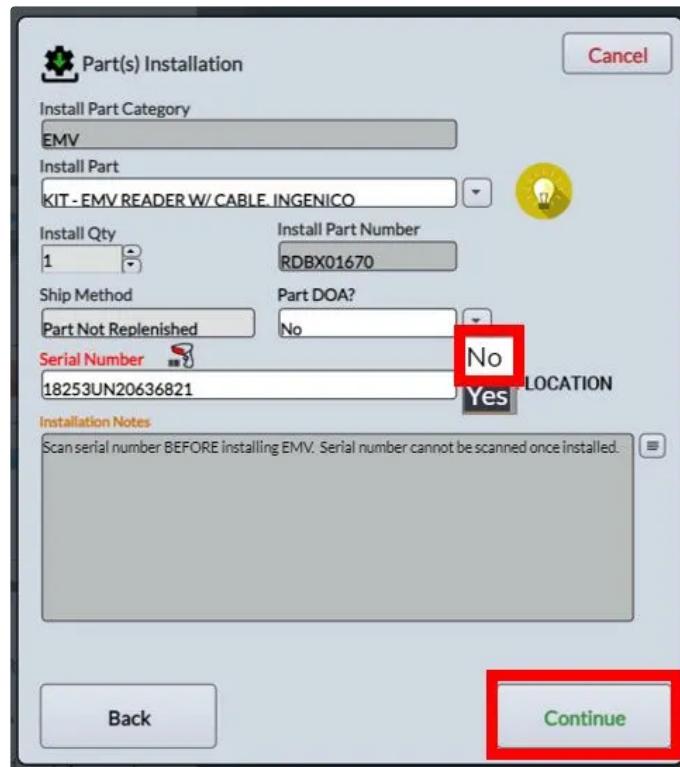
33. Update the WO System.

34. If the EMV is not operational (DOA) - From the Part DOA dropdown, choose "Yes" and then press "Continue". Don't forget to call MS to have the status changed. If you do not have a replacement EMV, place the work order in Pending with a Pending Code Reason of Central Part.



Add a caption

35. If the EMV is operational, choose "No" from the Part DOA dropdown. Press "Continue"



Add a caption

36. Enter the time in minutes it took to complete the task and press "Add Task and Part"



Add a caption

37. Add a task line item for the water Diverter installation.

t	Rem. Qty	RMA Type	Ship Method	Status	Inst. Part#	Ins
RREAD	1	Not Applicable	Part Not Replenished	Requested	RDBX01893-02	WAT
ER - WAT	1	Not Applicable	Part Not Replenished	Requested	RDBX01893-02	DIV

Add a caption

38. Add a task line item for your Test Transaction

	System	Issue	Cause	Resolution
e	Doors	Credit Card Reader	Water Damage	Replaced
e	Doors	Credit Card Reader	Water Damage	Replaced
TT	TT	TT	TT	Successful

Add a caption

39. Indicate that the kiosk is operational, complete the comment section and close the work order.