Rollout Instructions: How to Update the Software on Merco Hot Holding Cabinets

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Introduction

This document provides instructions for updating the Merco Hot Holding Cabinet software to enable units to connect to Wi-Fi and update the menu list on the device to include cheese sauce and burritos. This is to be used with the Digital Checklist provided by the Chick-fil-A DFS Team. The digital checklist is a Smartsheet Form available here: Merco Update Form for DFS.

The update will take about three minutes per device and will cancel any current holding during the process. Therefore, it is best to perform the updates outside of operating hours (i.e.,after close).

Most locations will have both floor cabinets (MHC52 or MHC54) and counter cabinets (MHC22 or MHC24). The floor cabinets have 5 shelves (MHC52 and MHC54). The Floor cabinets have casters which allow operators to place the units where they see fit in their Kitchen. The cabinets located on the counter have 2 shelves (MHC22 or MHC24). Most locations have at least one floor cabinet and one counter cabinet. Some smaller volume locations may have fewer cabinets or two counter cabinets. Some larger volume locations may have two or three floor cabinets and two or three counter cabinets.

Tools Required

To perform the update, you will need the following tools and materials:

- A ¼" nut driver or a ¼" socket and socket wrench
- (1) USB flash drive formatted with a FAT32 file system.

Process Overview

Read this guide in its entirety before visiting the Restaurant. This is a summary of the steps that you will complete when using the digital checklist (**SmartSheet**) form:

1. Record the Serial # and Model # located on the unit's physical data sticker
2. Record the Model Number and UI Version on the digital screen
3. Confirm the right file to load to the USB
4. Perform the update
5. Confirm the update was successful and record new UI Version.

Record the Serial Number and Model Number located on the Data Sticker

Note: The Data Sticker is on the unit's right-hand side when facing the primary side. The primary side has the power toggle switch on it. Please see Appendix for examples.

Note: The equipment may need to be rotated, rolled, or turned to gain access to the Data Sticker. The only consideration is to be aware of the power cord and ensure it does not come unplugged from the outlet when moving.

1. Take a picture of the Data Sticker and record the Model Number and Serial Number
   a. If it is missing the data sticker, please record its status: missing/illegible
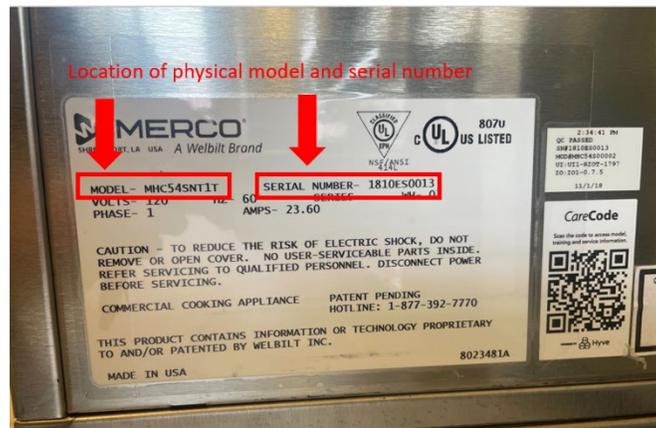
Identifying the Merco Model Number and UI Version (*User Interface*).

2. Power ON the Merco Unit by pressing the toggle switch on the front of the unit
   a. If the unit does not turn ON ensure the unit is plugged into the outlet
   b. If unit still does not turn ON, record "inoperable upon arrival" and continue to the next unit
   c. Record any existing errors displayed on the unit
   d. There are a few non-problematic errors that you can disregard:

d.1.   NFC Errors can be ignored
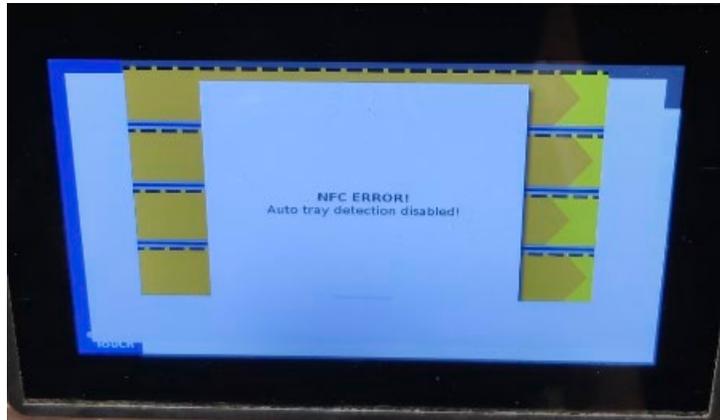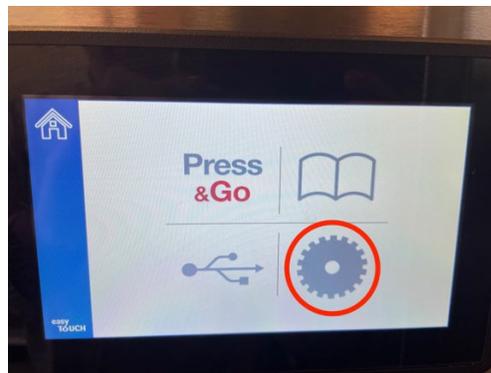

d.2.   If the error cannot be acknowledged and step 3 cannot be performed, please record "unit inoperable upon arrival" and add any additional notes before moving to the next unit

Power ON Button

3. Press the Home button and then press the gear icon seen below:

4. Swipe on the user interface to the System Information Page

System Information

Firmware Versions

Board	Version
UI	RIOT-2119
IoT	00.004.009
Master I/O board	0.7.5
Reader board #1	0.4.0

Cabinet Information

Item	Value
Serial #:	1809ES0050
Model #:	MHC22SNT1T
Store #:	N.A.

Menu MD5

830cc65b8fa7255febe46af379aedea0

● ● ● ● ● ● ● ● ○ ●

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5. Record the **UI Version, Serial #,** and the **Model #**

6. Determine if the UI(User-interface) is a **RIOT-****** or if it is a **UX-****** interface
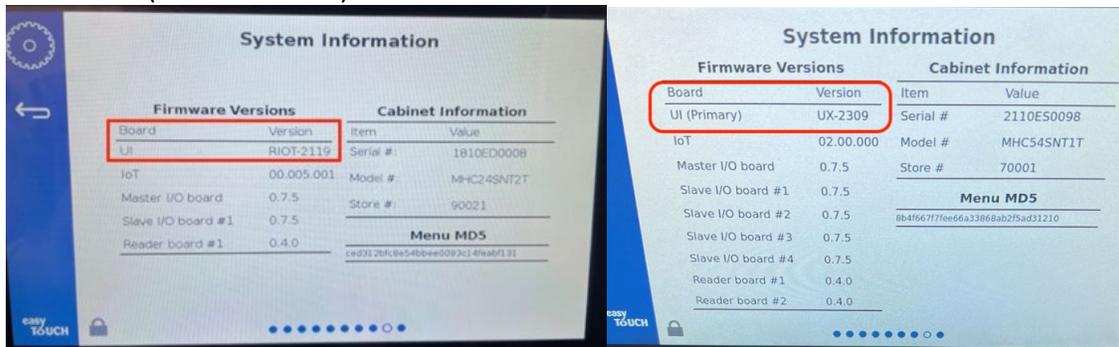
7. Return to the **Home Page** by pressing the **return arrow** then press the **Press & Go** button
8. Record the **Connectivity Status** of the Merco Cabinet using the Connectivity Confirmation example in the Appendix.
   Note: The unit may take 2-3 minutes to show the true connected status after initial power ON.
9. Power **OFF** the unit by pressing the toggle switch

Preparing the USB Drive at your Computer

10. Please ensure the USB Drive (Size: 2gb to 32gb) is formatted as a **FAT32 file system**
    a.   Plug the drive into your PC and make sure it shows up under **My Computer** or **This PC**.
    b.   Right-click on the drive and choose **Properties.**
    c.   The filesystem is displayed in the dialog that pops up.
    d.   If you need to reformat the drive, you can follow the instructions at
          https://www.asus.com/support/faq/1044735/

11. Select the correct file by following the table below. Put it onto the USB flash drive. Do **NOT** rename the file. Leave it as is.
    a.   **note that if a unit has 5 shelves, the file name will have a 5 in it.

|	UI Version		Model #		Software File Name Needed
IF	**RIOT-******	AND	**MHC5**	THEN	**vhcupdate_RIOT_MHC5.tar.gz**
IF	**RIOT-******	AND	**MHC2**	THEN	**vhcupdate_RIOT_MHC2.tar.gz**
IF	**UX-******	AND	**MHC5**	THEN	**vhcupdate_UX_MHC5.tar.gz**
IF	**UX-******	AND	**MHC2**	THEN	**vhcupdate_UX_MHC2.tar.gz**

12. Eject the drive when finished and take it to the Merco device to be updated.

The first four characters of the model number are all that is needed to identify which file to upload.
Example: MHC52SNT1T --> **MHC5**

Performing the Update

13. Remove the plastic cover located on the back of the cabinet by using a 1/4" nut driver to remove the two screws holding the cover onto the unit.
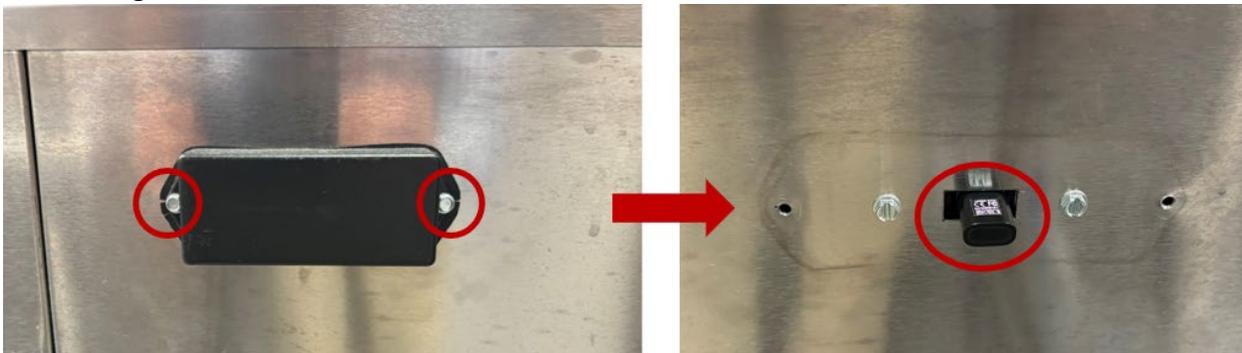
14. Remove the USB device that is currently in the USB port. This device is called a Wi-Fi dongle. You will reinsert this later after the update is completed.
    a.   The Wi-Fi dongle may be missing, and a spare can be installed after the update is completed
    b.   Place the two screws and Wi-fi dongle in the cover to not lose the parts during the update

15. Insert the USB flash drive (with the required software file for the correct Model Number and UI version).
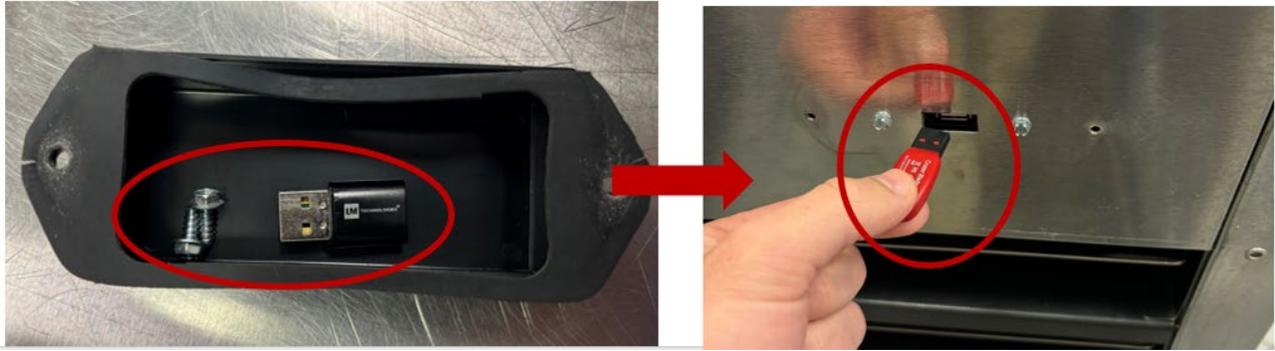
16. Power ON the unit by pressing the power switch

17. The Update will apply automatically, but may take up to three minutes for the display to show "UPDATE IN PROGRESS"
    a.   **DO NOT** remove the USB while firmware update is in progress.
    b.   **DO NOT** unplug the unit or power cycle the unit while the update is in progress.
    c.   MHC24, MHC52, and MHC54 units will display a percentage "Firmware Update Progress", but MHC22 units will not display a percentage of the update
    d.   If the unit does not begin updating after three minutes (screen does not show "Firmware update in Progress"), power cycle the unit and wait an additional three minutes, repeat again if necessary, but this time remove the USB and re-insert while the unit is ON. If the update still does not start then follow the trouble shooting instructions below.

Confirming the Update Was Successful

18. The update is quick and will not take more than a few minutes and will display "**Firmware Update Successful**" at the end of a successful update.
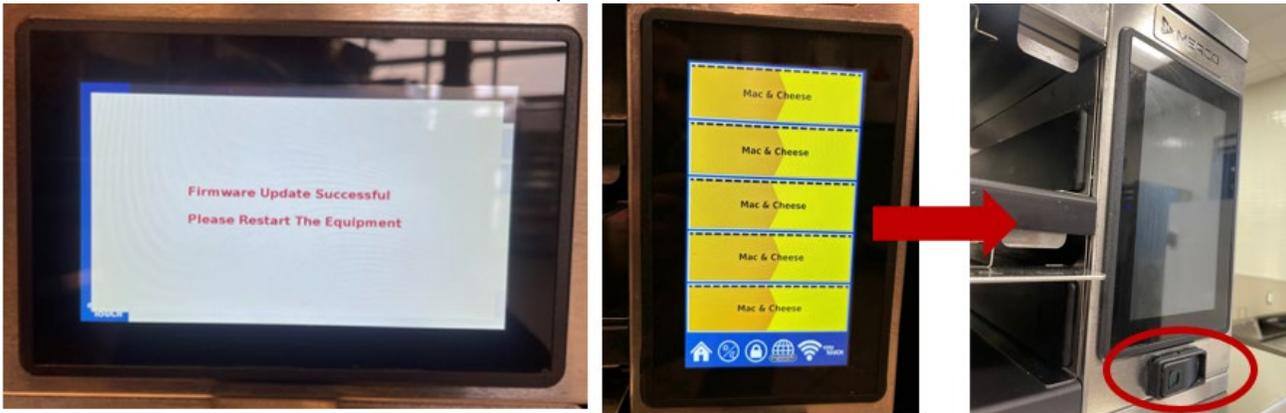

19. After firmware update was successful:
    a.   Power off the unit.
    b.   Remove the USB flash drive
    c.   Insert the USB device that was previously in the USB port (i.e., the Wi-Fi dongle)
    d.   Re-insert the plastic cover (and gasket if it was removed or fell off) and ensure to not overtighten the screws
    e.   Power ON the unit
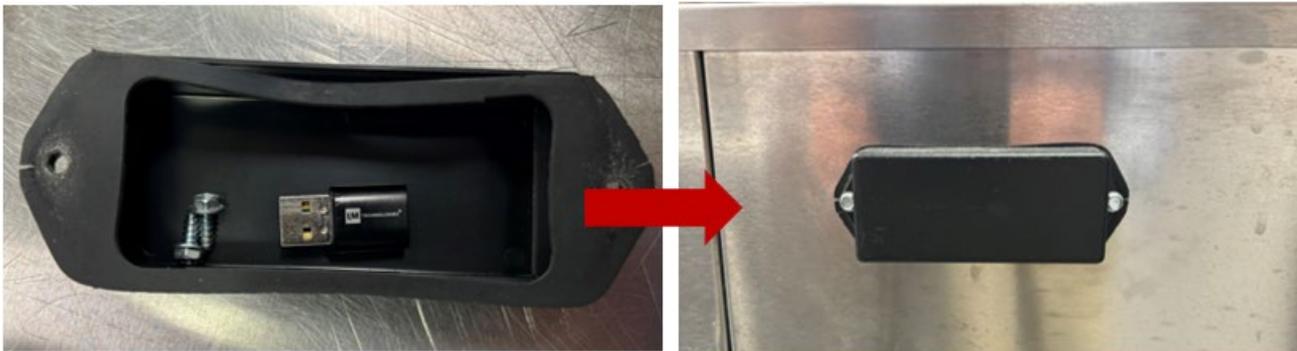
20. To confirm unit updated successfully:
    a.   At the primary display, select the **HOME** icon -> then **Gear** icon
    b.   Swipe to the **Systems Information Page**
    c.   Confirm the **RIoT SDK** displays version **2.1.0-GO**
          <mark>If the RIOT SDK displays **2.1.0-GO,** then the update was successful</mark>
    d.   Record the updated **UI Version**
          Starts with either RIOT-XXXX or UX-XXXX
    e.   If RIoT SDK version is blank, missing, or displays a question mark, please follow the troubleshooting guide below to address the issue
    f.   Note: Immediately following the update, the secondary User Interface (which may be on the back of the unit) will say that it has lost connection to the primary UI. This is expected behavior which should correct when the unit is restarted. See following image:
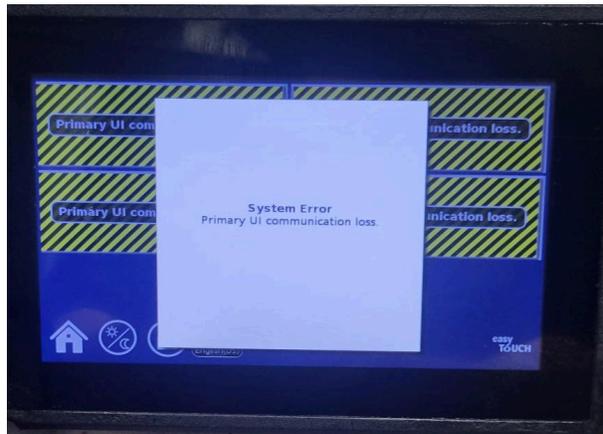
f.1.

g. Note: After the update is successful, the secondary UI will incorrectly say it is on the vdown network. This is expected behavior which will be corrected in a future update.

21. Take a picture of the Systems Information Page and record the **RIoT SDK** version

22. Confirm the successful update by checking Grilled Filets Cook Temperature

    a. From the **Home Page**, Press the **Menu Icon** and scroll to **Grilled Filets**, select **Grilled Filets**

    b. For **MHC22** or **MHC24** model units, the **Hold Temp** should be **200 F**

    c. For **MHC52** or **MHC54** units, the **Hold Temp** should be **190 F**

    d. If the unit has the incorrect temperature, please follow troubleshooting instructions in the appendix
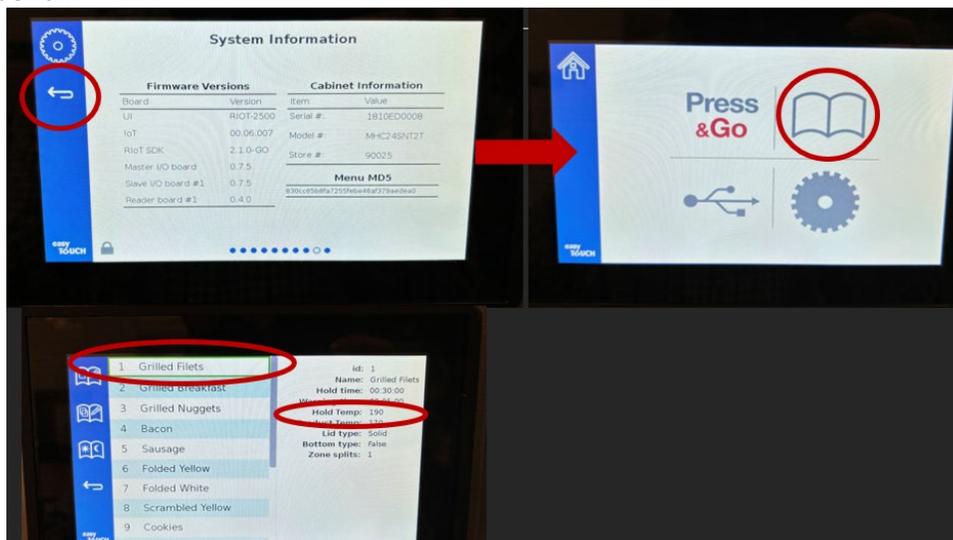
23. Wait 5 minutes to allow time for the unit to connect to the network.

24. Record the Connectivity Status of the unit using the Connectivity Status section in the appendix.

a. During this waiting period, please feel free to begin step 25 to update remaining Merco Cabinets
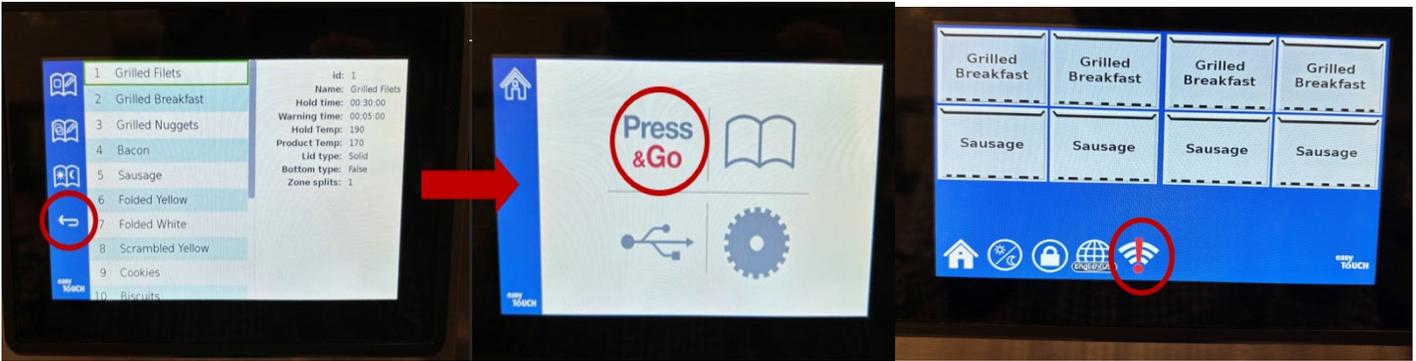
25. Repeat steps 1-22 for any remaining Merco Cabinets

STOP: If using the same USB flash drive for multiple Merco Unit updates, ensure that the old file is deleted off the USB and only the new correct file is on the main folder of the drive. Ensure for each Merco cabinet the correct file is being uploaded for the correct UI version and the correct model number (5x2 5x4 or 2x2 2x4)

Appendix

Troubleshooting and Escalation Instructions

Unit did not begin Auto Updating

The Merco unit **DID NOT** Auto Update after inserting the USB and turning the unit ON (even after a few attempts).

A. If there are active holdings on the unit, the update will not start
    a. Turn the unit OFF and back ON
    b. Display will provide option to "Clear Active Timers", Select "Clear Active Timers"
    c. Repeat steps 13-24
        i. If the issue persists, with the unit ON, remove the USB and insert it back into USB port, wait 5 minutes before following the remaining troubleshooting steps below.
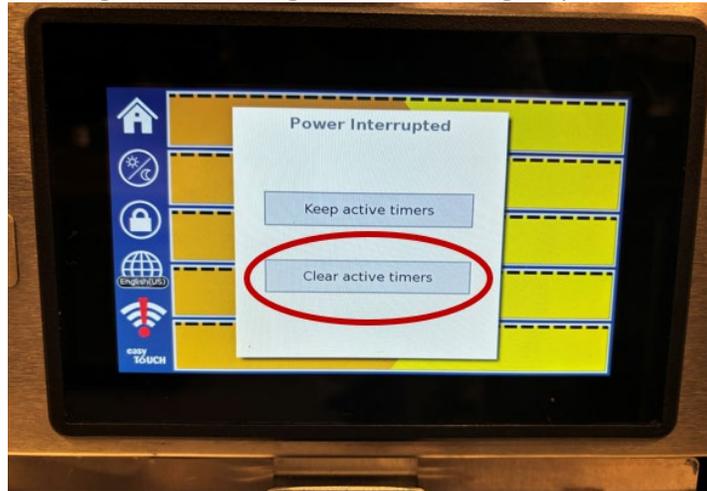
B. The wrong software file was on the USB, go back and follow steps 3-12 to ensure the correct file is loaded onto the USB Drive and ensure USB Drive is formatted properly then complete remaining steps 13-24 to update the unit
    a. If the unit still does not begin Auto-Updating, with the unit ON, remove the USB and Re-Insert into USB port, wait five minutes for it to begin updating.
    b. If the unit continues to not update, then likely the USB port or cable is disconnected/damaged, and a Merco Technician will need to come out to service the unit.
    c. Please submit a service ticket to Merco so the issue can be addressed and resolved.
    d. The Service Request Form is the preferred contact method. Here are 2 ways to access the form:
        i. Form URL: https://www.surveymonkey.com/r/Merco_Service_Request

        ii. QR Code Access:
    e. Input the Store Information, Date/Time, Serial Number, type of issue (connectivity), and a brief description of the issue (Unit would not update after multiple attempts, correct files used, unit was disconnected upon arrival so it could be a bad USB port or cord)
        i. Document the issue in the **additional notes** section of the completion report and select Yes that the issue has been escalated to Merco
        ii. Continue updating remaining units

Damaged or missing USB port

If you suspect the unit has a damaged/missing USB port but are unsure, you can check if the unit's Wifi dongle is connecting the device to the network. **Plug the Wifi dongle back in. Wait 1 minute. Confirm the connectivity status on the main menu with the Wifi dongle in:**

- This status means disconnected—it is possible the USB port is damaged or broken.

- This status means the unit is on the provisional network—the USB port is functioning normally.

- This status means the unit is connected to Wi-Fi —the USB port is functioning normally.

If the device is connected to the provisional network or other network, then the USB port is working normally. You may need to confirm that you are using the correct software file for the model and UI version of this device. Make sure no other files or folders are present on the USB drive besides the update file.

If—after confirming the correct software file has been used—it still does not work, please submit a service ticket to Merco so the issue can be addressed and resolved

A. The Service Request Form is the preferred contact method.
   a. Here are 2 ways to access the form:
      i. Form URL: https://www.surveymonkey.com/r/Merco_Service_Request

      ii. QR Code Access:
   b. Input the Store Information, Date/Time, Serial Number, type of issue (connectivity), and a brief description of the issue.
   c. Document the issue in the **additional notes** section of the completion report and select Yes that the issue has been escalated to Merco
   d. Continue updating remaining units

Firmware Update Failed

If the unit begins to update, but then displays **"Firmware update Failed, please restart the equipment"** on one display and on the other displays **"File Transfer Failed: Missing Packets Error!"**

A. Turn the unit Off, remove the USB, insert the WiFi dongle, cover, gasket, and two screws
B. Turn the unit ON to ensure it is operational and document the information in steps 18-24, then turn the unit Off.
C. Please submit a service ticket to Merco so the issue can be addressed and resolved
   a. The Service Request Form is the preferred contact method.
   b. Here are 2 ways to access the form:
      i. Form URL: https://www.surveymonkey.com/r/Merco_Service_Request
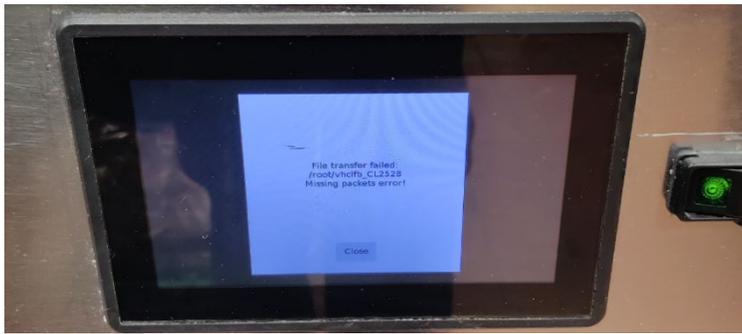

      ii. QR Code Access:
   c. Input the Store Information, Date/Time, Serial Number, type of issue (connectivity), and a brief description of the issue.
   d. For the brief description, input the error displayed "File Transfer Failed: Missing Packets Error!"
D. Document the issue in the **additional notes** section of the completion report and select Yes that the issue has been escalated to Merco
E. Continue updating remaining units

Unit Has the Wrong Hold Temperature for Grilled Filets but Is Still Operable

The unit is a **MHC22** or **MHC24** and should have a hold temperature of **200F**, but instead it is 190F
The unit is a **MHC52** or **MHC54** and should have a hold temperature of **190F**, but instead it is 200F
   A. If the unit has the incorrect Hold Temperature for Grilled Filets, then the correct UI version was selected, but the incorrect model was chosen in **Step 11**.
   B. **Please repeat Steps 10-24** and ensure the correct Model # and UI Version is used to select the update file in Step 11.

Model #	Correct Grilled Filet Hold Temperature	Incorrect Grilled Filet Hold Temperature	Next Steps
MHC22 or MHC24	200 F	190 F	Repeat Steps 10-22
MHC52 or MHC54	190 F	200 F	Repeat Steps 10-22

C. If the Hold Temperature is still wrong, email **SmartEquipmentSupport@chick-fil-a.com** with a brief description, serial number, model number, and location number of the restaurant. **In your email, please confirm whether or not you have already escalated this issue to the manufacturer.**

D. Document the issue in the **additional notes** section of the completion report and the Smart Equipment Support team will resolve the issue.

After successfully updating the Merco Cabinet, it displays blank boxes for all the product holdings

A. If this occurs, power the unit OFF and back ON to resolve the issue

B. The issue should not impact the update process, nor should it impact operations once it is power cycled.

Wi-Fi Dongle was initially missing when cover was removed

A. Replace with a spare Wi-Fi Dongle and record it completion report. Request spare parts from your dispatching manager if they were not previously supplied to you.

Cover, gasket, and or screw was missing or damaged

A. Replace part and record in the completion report. Request spare parts from your dispatching manager if they were not previously supplied to you.

Unit is no longer operable or functioning following the update

If a unit was functioning properly before the update and is now inoperable, escalate the problem to Merco Tech support.

Example: The Merco unit Auto Updated, but after turning the unit OFF and back ON it got "stuck" on a page displaying the Merco logo and will not move forward for normal operation

A. Turn the unit OFF and Back ON

B. If the issue persists, escalate the problem using the process in Problem Support and Escalation Path

C. Please submit a service ticket to Merco so the issue can be addressed and resolved
   a. The Service Request Form is the preferred contact method. Here are 2 ways to access the form:
      i. Form URL: https://www.surveymonkey.com/r/Merco_Service_Request
      ii. QR Code Access:
   b. Phone (if Service Request Form will not work): 877.392.7770
   c. Email: mercosvc@welbilt.com
D. Email **SmartEquipmentSupport@chick-fil-a.com** the restaurant number, model/serial number of the unit, and a brief description of the issue, document in completion report and **do not update the remaining Merco units in the restaurant.**
   a. **In your email, please confirm whether or not you have already escalated this issue to the manufacturer.**

All other issues

If the Merco unit is functioning normally but additional support is needed, please contact SmartEquipmentSupport@chick-fil-a.com with the restaurant number, model number and serial number of the unit, and a brief description of the issue.

- **In your email, please confirm whether or not you have already escalated this issue to the manufacturer.**
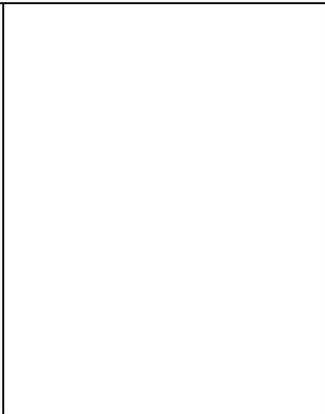
Model Number Confirmation

Model Number	# of Rows & Columns	Description	Image	Location of Data Sticker
MHC22SNT1T	2x2	Front Display		
MHC22SNL1T	2x2	Front Display Landscape		

MHC24SNT2T	2x4	Front and Rear Display		
MHC52SNT1T	5x2	Front Display		
MHC54SNT1T	5x4	Front Displays		

Connectivity Confirmation

Description	Connectivity Status to Record	Connectivity Status to Record
Solid White Wi-Fi Emblem		**Connected**

Bars may vary depending on signal		
Solid White Wi-Fi Emblem with exclamation point		**Provisional Network**

Outlined Wi-Fi emblem with a blank center, set against a blue background with a diagonal slash		**Disconnected**