



Container Refrigeration



ML3 USB Adapter 76-50214-02 Instructions

62-12042



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INSTRUCTIONS

The steps for using the ML3 USB adapter are summarized below. It is important to read the steps prior to performing them.

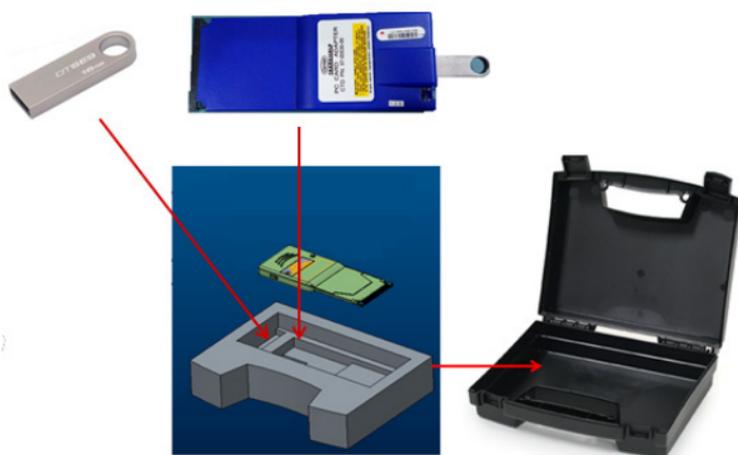
Step 1 - Download Software to a PC

Step 2 - Prepare the USB Sticks

Step 3 - Load Software to the USB Sticks

Step 4 - Initialize the USB Card Adapter

Step 5 - Upload Operational Software or Download Data



Step 1 - Download Software to a PC

The following software needs to be downloaded to a PC from the Carrier Container TransCentral Information Center:

- scr153XX.ml3 (software to upload)
- recp51XX.ml3 (software to upload)
- co2_57XX.ml3 (software to upload)
- cfXXXXXX.CF3 (latest model Configuration required)
- menuXXXX.ml3 (latest Menu required)
- read05XX.ml3 (latest Databank required)

Procedure:

1. Navigate to TransCentral at <http://www.container.carrier.com>.
2. Log into TransCentral with appropriate ID and password.
3. Access the latest version of software by clicking on Service > View Container Info.
4. Click on Contents View.
5. Click on Software. (Refer to **Figure 1**)
6. Find the appropriate software files for download.

Figure 1 Software on TransCentral



Carrier
TRANSCOLD
Dallied Technologies

TransCentral

Sales Service Parts

- ▶ 20 Series Bulletins
- ▶ Container Aftermarket Parts Bulletin
- ▶ Container Aftermarket Specials
- ▶ Field Kits
- ▶ Help
- ▶ Manuals
- ▶ Parts Bulletin
- ▶ Service Bulletins
- ▶ Service Information
- ▼ **Software**
 - ▶ CA
 - ▶ Card Programmer
 - ▶ Configuration Card (ML2,2i / ML3)
 - ▶ Customer Specific
 - ▶ DataBANK
 - ▶ DataLine
 - ▶ History
 - ▶ MicroLink 2
 - ▶ MicroLink 2i / 3 (Recip)

Step 2 - Prepare the USB Sticks

Two USB sticks are required for this procedure: one for software upload and the other for data download. It is recommended that the USB sticks be marked accordingly for future use.



1. Plug the USB stick into the computer's USB port.
2. Open Windows Explorer.
3. Right-click on Removable Disk for the USB stick and select Properties.
4. Verify the File system is FAT. (Refer to **Figure 2**)

Note: If the File system is not FAT, reformat the USB stick to FAT.

To format a USB stick to a FAT File system:

- a. Open Windows Explorer.
- b. Right-click on Removable Disk for the USB stick and select Format.
- c. Verify the File system is FAT (Default). (Refer to **Figure 3**)
- d. Click on Start.
- e. Click on OK, then OK, then Close.

Figure 2 File System FAT

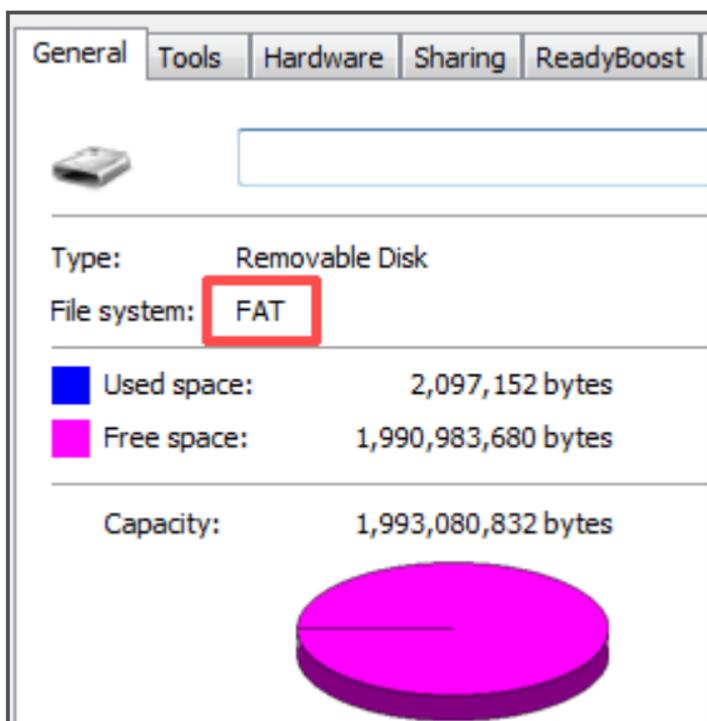
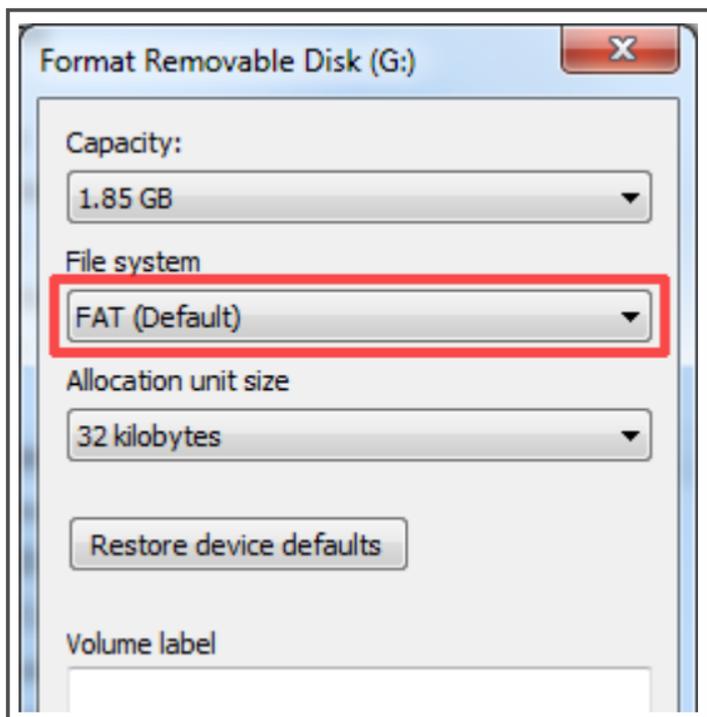


Figure 3 Format USB Stick to FAT



Step 3 - Load Software to the USB Stick

Note: Do not put both unit operational software (for upload) and data software (for download) on the same USB stick.

A. Upload Operational Software to USB Stick (Refer to **Figure 4**)

1. On the Upload USB stick, create a main folder named "CARRIER".
2. Create a subfolder named "MLx" under "CARRIER".
3. Load the following files from the PC to the USB drive folder "MLx" for software upload:

Required Files

- cfXXXXXX.CF3 (latest Configuration required)
- menuXXXX.ml3 (latest Menu required)

Selectable Files

- scr153XX.ml3 (Software to upload)
- recp51XX.ml3 (Software to upload)
- co2_5703.ml3 (Software to upload)

Note: Combined file size cannot exceed 2 MB.

B. Download Data Software to USB Stick (Refer to **Figure 5**)

1. On the Download USB stick, create a main folder named "CARRIER".
2. Create a subfolder named "MLx" under "CARRIER".
3. Load the file 'read05XX.ml3' to the USB drive folder "MLx" for software Databank feature.
4. Create a subfolder named "DOWNLOAD" under "CARRIER" for storing downloaded dcx files.

Figure 4 Operational Software Upload

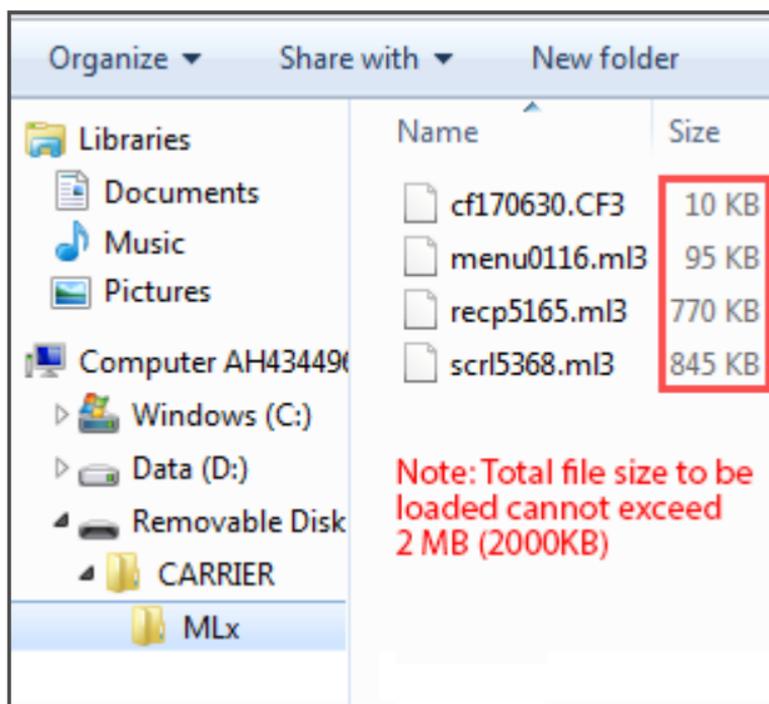
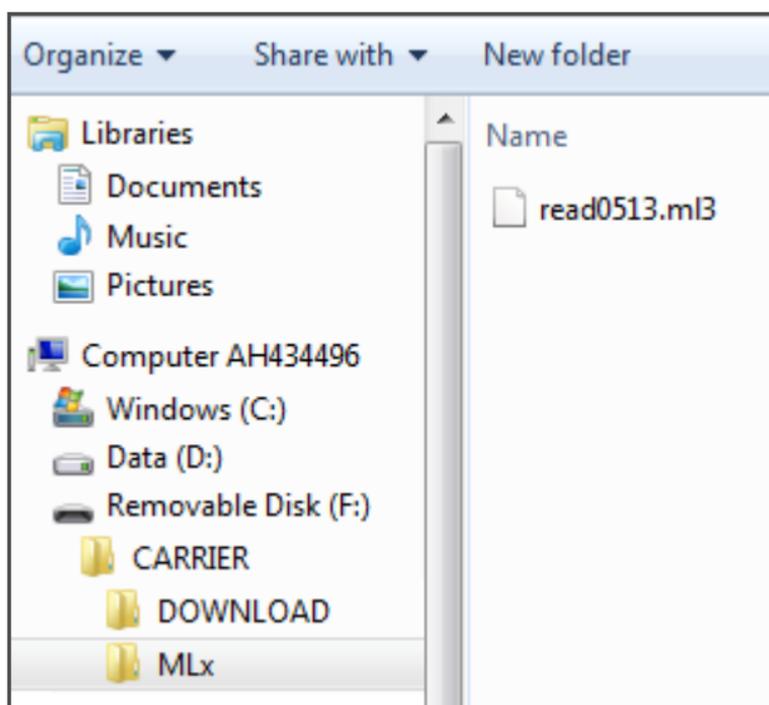


Figure 5 Data Software Download



Step 4 - Initialize the USB Card Adapter

When the adapter is first used or when changing operation from uploading software to downloading data, or vice versa, the adapter needs to be re-initialized.

To Initialize the Adapter:

1. Power the unit ON (controller energized) without the USB adapter installed.
2. Insert the appropriate USB stick into the adapter (Upload or Download).
3. Insert the adapter, with correct USB stick, into the programming slot of the controller. The adapter is installed with the arrow pointing up / selector switch up.
4. The green LED flashes as the adapter is initialized. Once the initialization is complete, the LED is solid green.
5. Once the LED is solid green, power off the unit and remove the adapter.

Note: The adapter is now setup to either download or upload with the software that resides on the adapter. To determine the last state of the adapter, install the adapter into controller, and then power the unit up. The last menu will be displayed: "XXX K" "free" space for download or "set" "up" for upload. If you need to switch from one operation (software upload) to the other operation (data download), or vice versa - you must follow the procedure again to Initialize the adapter.

Step 5 - Upload Operational Software or Download Data

With software loaded on the USB stick, and the USB Card Adapter initialized, the standard operation is the same as DataBANK for download and software uploads using an SRAM Card. (Refer to [Annex](#))

A. Uploading Operational Software

With an adapter initialized for upload, use it without the USB stick on as many units as required.

1. Power the unit OFF.
2. Insert the adapter into the programming slot of the controller. (Refer to [Figure 6](#))
3. Power the unit ON using the start/stop switch. Set up will be displayed on the keypad.
4. Load software using the same procedure as with SRAM card using the adapter.
5. When the controller displays "Pro donE" AND the adapter LED is solid green, power the unit OFF and remove the adapter.

If new unit software revisions are added to the USB stick - follow [Step 4 - Initialize the USB Card Adapter](#) procedure.

Figure 6 Adapter without USB



B. Download with USB Stick

With the adapter initialized for download, use it on as many units for downloading as required without initialization but the USB stick is required as the trip data is downloaded to the stick.

1. Power the unit OFF.
2. Insert the adapter, with USB stick, into the programming slot of the controller. (Refer to **Figure 7**)
3. Power ON the start/stop switch. "XXXk Free" will be displayed.
4. Perform the data download, similar to the Databank card, by pressing down the arrow and then pressing enter to select and another enter to start.
5. When the controller displays "donE" AND the adapter LED is solid green, power the unit OFF and remove the adapter.
6. The download stick can now be removed and transferred to your PC for the evaluation of the data using the DataLINE program.

Figure 7 Adapter with USB



Annex

Software Uploading or Data Downloading

The process used for either uploading or downloading when the adapter communicates with the controller is the same as the process used for SRAM card. Refer to the SRAM user guides for specific instructions

“bAd cArd” Message

The “bAd cArd” message will be displayed when the unit is powered on in the following scenarios:

- The adapter that is inserted into the controller is initialized for software uploading, but has a USB data downloading stick inserted.
- The adapter is initialized for data downloading and a software upload stick is inserted.

Best practice is to install the card with no USB prior to starting to reconfirm the Adapter initialization mode (software upload or data download). Then if required perform the **Step 4 - Initialize the USB Card Adapter** procedure.

LED Reference Chart

LED Status	What it Means
Solid Green	<ul style="list-style-type: none">• Adapter ready with the data copied and written to memory• Ready to perform operations• USB not connected
Solid Red	<ul style="list-style-type: none">• Hardware fault <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Re-initialize adapter• Replace adapter
Green flashing at the rate of 2 Hz or 10 Hz	<ul style="list-style-type: none">• Adapter initialization in progress• Controller writing to the adapter• Data transfer complete <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Do not remove until LED is solid green
Green flashing during 5 sec at the rate of 2 Hz	<ul style="list-style-type: none">• Adapter preparation in progress <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Wait for LED to go solid
Green flashing during 20 sec at the rate of 10 Hz	<ul style="list-style-type: none">• Finalizing adapter programming <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Wait for LED to go solid

LED Reference Chart (Continued)

LED Status	What it Means
Red flashing at the rate of 4 Hz	<ul style="list-style-type: none">• Data backup from adapter to USB <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Wait until data backup is complete
Red and Green are flashing alternately at the rate of 2 Hz	<ul style="list-style-type: none">• File not found in USB stick with valid extension• Directory not found in USB <p><u>Recommendation:</u></p> <ul style="list-style-type: none">• Ensure correct software files are on adapter• Re-initialize adapter

Adapter to Unit Procedures

A. Upload Operational Software with an Adapter

1. Turn power off.
2. Insert the adapter into the programming slot on the controller.
3. Turn unit power on. The display will show: SET UP.
4. Press the UP or DOWN arrow key until the display reads:
 - LOAD 53XX for Scroll
 - LOAD 51XX for Recip
5. Press the ENTER key to confirm the software selection. The display will alternate between: PrESS EntR and rEV XXXX.
6. Press the ENTER key again. The display will show: Pro SoFt. When complete, the display will show: Pro done.
7. Verify the adapter LED is solid green, and then turn power off and remove the adapter.
8. Turn power on and wait 30 seconds. The status LED will be flashing fast, and there will be no display. The controller is loading new software into memory. This takes about 30 seconds. When complete the controller will reset and power up normally.
9. Wait for the unit to startup, and confirm that the software is correct (code select: 18).
10. Turn power off. Operational software is loaded.

B. Program the Model Configuration into the Controller

1. Turn power off.
2. Insert the adapter into the programming slot on the controller.
3. Turn unit power on. The display will show: SET UP.
4. Press the ENTER key. The display will show: ruN COnFG.
5. Press the ENTER key again.
6. Press the UP or DOWN arrow key until the display reads the desired model number.
7. Press the ENTER key. The display will show: COnFG done.
8. Verify the adapter LED is solid green, and then turn power off and remove the adapter.
9. Turn power on and confirm the model configuration is correct during startup (code select: 20).
10. Turn power off. Configuration is complete.

C. Set the Time (GMT) and Date to the Controller

1. Turn power off.
2. Insert the adapter into the programming slot on the controller.
3. Turn unit power on. The display will show: SET UP.
4. Press the ENTER key. The display will show: ruN COnFG.
5. Press the UP or DOWN arrow key until the display reads: SET tIm.
6. Press the ENTER key. The display will show the Date: YYYY MM-DD and the DAY will be blinking.

7. Press the UP or DOWN arrow key to display the correct DD, and then press ENTER.
8. Press the UP or DOWN arrow key to display the correct MM, and then press ENTER.
9. Press the UP or DOWN arrow key to display the correct YYYY, and then press ENTER.
10. When you press ENTER to confirm the YEAR, the time will be displayed and the MINUTES will be blinking.
11. Use the UP or DOWN arrow key to display the correct MINUTES, and press ENTER to confirm.
12. Now the HOURS will be blinking (24h format).
13. Use the UP or DOWN arrow key to display the correct HOUR, and press ENTER.
14. When you press ENTER to confirm HOUR, display will show: SET tIM.
15. Verify the adapter LED is solid green, and then turn power off and remove the adapter.
16. The Container DATE and TIME are set.

D. Program the Container I.D. Number to the Controller

1. Turn power off.
2. Insert the adapter into the programming slot on the controller.
3. Turn unit power on. The display will show: SET UP.
4. Press the ENTER key. The display will show: ruN CONFG.
5. Press the UP or DOWN arrow key until the display reads: SET Id.
6. Press the ENTER key. The display will show the first letter of the Container I.D.

7. Press the UP or DOWN arrow key until the correct prefix is displayed, and then press ENTER.
8. Repeat step 7 to scroll through and adjust all characters of the Container I.D. number.
9. When you press ENTER to confirm the last character of the Container I.D. number, display will show: SET Id.
10. Verify the adapter LED is solid green, and then turn power off and remove the adapter.
11. Turn power on and confirm the Container I.D. number is correct during startup.
12. Turn power off. The Container I.D. is set.

E. Download Data with the use of an Adapter

1. Turn power off.
2. Insert the adapter into the programming slot on the controller.
3. Turn power on. Display will show available free space remaining.
4. Press UP or Down arrow key to scroll through menu for selection. Selections are as follows: triP, 30dAY, 60dAY, 90dAY and ALL.
5. Press ENTER key to confirm selection.
6. Display will alternate between: PrESS EntR and selection.
7. Press ENTER key again.
8. Display will show: dnLd.
9. When download is finished, display will show: dnLd done.
10. When adapter LED is solid green, turn power off and remove adapter. Data download is complete.



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