REELEX G2 Software Update Procedure

[**HMI Software Update Procedure**](#_1fob9te) **1**

[Introduction](#_3znysh7) 2

[Updating via USB Stick](#_2et92p0) 2

[Use HMI to format and prepare USB stick](#_tyjcwt) 2

[Copy upgrade image file to USB](#_3dy6vkm) 4

[Insert USB into HMI again](#_1t3h5sf) 4

[Updating via Memory Card](#_17dp8vu) 5

[Unplug HMI](#_3rdcrjn) 5

[Remove Current Memory Card](#_lnxbz9) 6

[Memory Card Location](#_44sinio) 6

[Prepare “Update” Memory Card](#_z337ya) 6

[Insert Memory Card with Software Update](#_3j2qqm3) 6

[Reapply Power to HMI](#_1y810tw) 6

[Remove “Update” Memory Card and Insert Original Card](#_2xcytpi) 7

[**G2 Controller Software Update Procedure**](#_1ci93xb) **8**

[Introduction](#_3whwml4) 8

[Updating Controller Software via USB Stick](#_va7tpn1qzpkr) 8

[Use your PC to format USB stick:](#_qsh70q) 8

[Copy the updated .EXE file onto the USB Stick:](#_3as4poj) 10

[Insert USB Stick into Controller:](#_1pxezwc) 10

[Access the USB Stick](#_49x2ik5) 11

[Cycle power on the machine](#_2p2csry) 16

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# HMI Software Update Procedure

## Introduction

The touch-screen HMI software on all G2 REELEX control systems can be upgraded to add machine functionality, fix issues and improve the user experience. Upgrading this software is done via memory card (or USB) on both standard Red Lion (G315) and Red Lion Graphite (G12) touch screens.

| **NOTE:** REELEX will provide software updates via memory card mailed to you, or provide you with the “image.ci3” upgrade file via email or web. |
| --- |

## Updating via USB Stick

| **NOTE:** Be sure no parameter changes take place for **five minutes** prior to upgrade! The HMI undergoes cycle periods where parameters are saved over time. Typically this cycle takes five minutes for all parameters to be saved to internal memory. Make sure REELEX machine and HMI are on for a full five minutes prior to upgrading the software. |
| --- |

### Use HMI to format and prepare USB stick

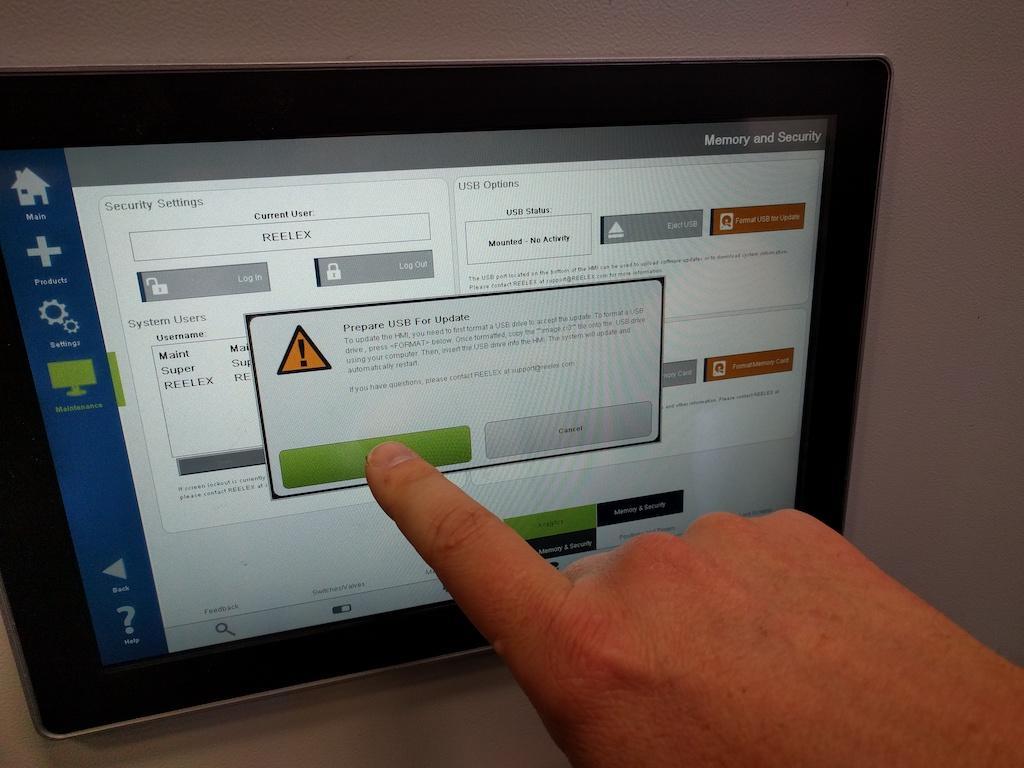
* 1. Insert USB memory stick into back of HMI:



* 1. Select “Maintenance” -> ”Logs,Memory,Security” and press "Format USB For Update":



* 1. Press "Format" on pop-up window:



| **NOTE:** All data will be lost on the USB drive. All recipes and logs are saved on the SD card and will remain intact during the upgrade. |
| --- |

* 1. Status should read "Mounted - No Activity"
  2. Press "Eject USB"
  3. Remove USB stick and insert into a PC:



### Copy upgrade image file to USB

* 1. Find the “IMAGE.ci3” file provided by REELEX or downloaded from the web on the computer.
  2. Copy "IMAGE.ci3" to USB stick using a PC. Write over existing file if needed. Do not change file name:



### Insert USB into HMI again

* 1. Insert USB memory stick in the back on HMI (a beep can be heard):



* 1. The blue status light will start to blink on the front panel of HMI
  2. The upgrade process can take up to 15 minutes. Do not remove USB stick. Do not power off.
  3. The HMI will reboot, configure itself, and return to the normal state.

| **IMPORTANT:** The update process can take up to **15 minutes**. If the device seems “frozen”, wait 10 more minutes before trying again. If the update doesn’t work, start at step 1 again or try a different USB drive. |
| --- |

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## Updating via Memory Card

### Unplug HMI

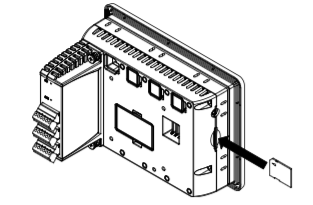
* 1. Unplug power supply from HMI. This can be done with the controller and machine still on.



### Remove Current Memory Card

* 1. Remove your CF or SD card from the side of the HMI. Save this card, as it stores all product and log data for your machine.

#### Memory Card Location



### Prepare “Update” Memory Card

* 1. Insert memory card you intend to use to update the software.
  2. Press “Format Memory Card” from the “Logs, Memory & Security” screen.
  3. A popup window will appear asking you if you want to format the card. Select “Format”.
  4. Eject the SD card by pressing the “Eject Memory Card” button.
  5. Remove the SD card from the HMI and insert it into your computer.
  6. Save the “image.cd3” file onto the SD or CF card.

### Insert Memory Card with Software Update

| **IMPORTANT:** Memory card must be formatted as “FAT”, not “FAT32” or any other format. |
| --- |

* 1. As shown above, insert the provided CF or SD card into the side of the HMI that has the updated HMI software.
  2. If you were to access this card from your computer, you should see an “image.ci3” file on it. This is the updated software. The file must be named “image”.

### Reapply Power to HMI

* 1. Plug the power cord back into the HMI.
  2. The screen will show the message “Verifying Image on Memory Card” or similar. This message may be on the screen for some time. The screen will then say “Updating Database” or similar.
  3. When finished, the screen should return to the “Home” or Startup Screen on the HMI.

| **IMPORTANT:** The update process can take up to **30 minutes**. If the device seems “frozen”, wait 10 more minutes before trying again. If the update doesn’t work, power off the HMI, reinsert the card and try again. |
| --- |

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### Remove “Update” Memory Card and Insert Original Card

* 1. When the HMI has finished updating, you may remove the “Update” memory card and insert your original card. The HMI should then load your recipe (product) lists, logs and other information.

If you require assistance, call REELEX at +1 (845) 878-7878 or email at [Support@reelex.com](mailto:Support@reelex.com).

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# G2 Controller Software Update Procedure

## Introduction

This procedure updates G2 REELEX coiling machine software via a working USB stick. It is important to follow all directions exactly. If you encounter any issues or unexpected behavior, please contact REELEX at +1 (845) 878-7878 or [Support@reelex.com](mailto:Support@reelex.com)

| **IMPORTANT:** Before performing the software update, take pictures of all the backend and HMI screens for coil settings, timers, lengths, etc. so they can be transferred over once the update is finished, as the update requires a new data file (.dta) to be created and will erase all prior settings. |
| --- |

## 

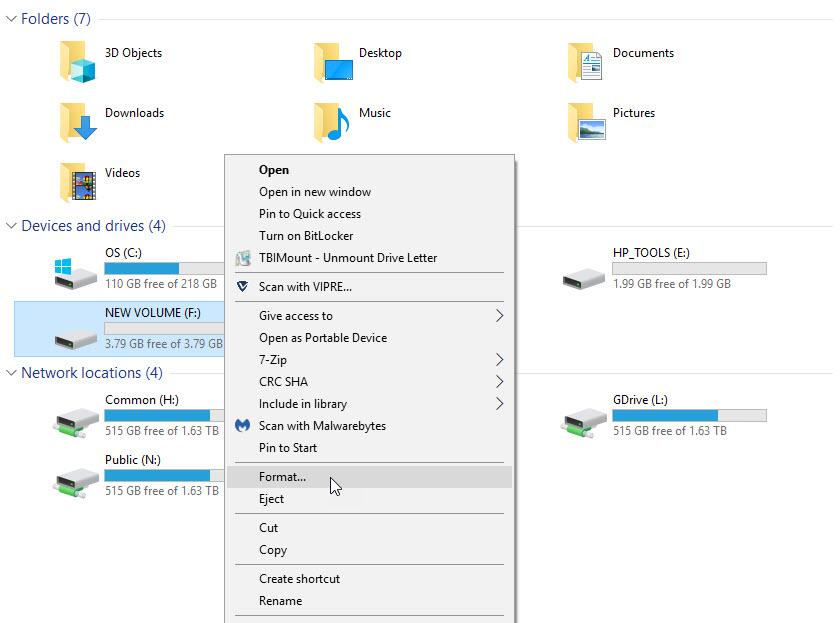
## Updating Controller Software via USB Stick

### Use your PC to format USB stick:

* 1. Insert USB memory stick into your PC:



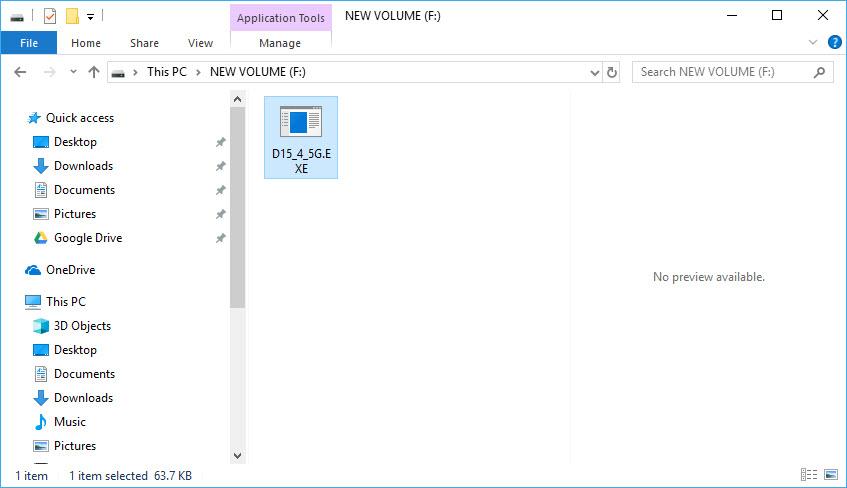
* 1. Right-click on the USB stick’s Removable Drive and click “Format”:



* 1. Select “FAT” and other Default values and press “OK”.

### Copy the updated .EXE file onto the USB Stick:

* 1. Copy the provided .EXE file, such as “D750.exe" to USB stick using a PC. Do not change the file name:



* 1. Eject the USB stick and disconnect from PC.

### Insert USB Stick into Controller:

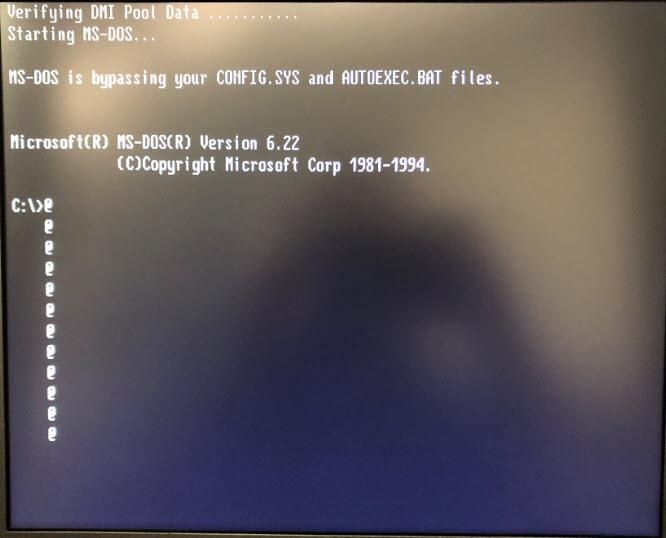
* 1. Power off the main breaker of the machine and allow the machine to power down.
  2. Open the back of the controller cabinet and find the industrial PC. On the front panel (or possibly hidden behind the access panel) should be a female USB socket.
  3. Insert the USB stick into the USB socket on the industrial PC:



### Access the USB Stick

* 1. Open the terminal screen and keyboard on the back of the control cabinet located above the industrial PC.
  2. Turn on power and IMMEDIATELY hold down the F5 key until the “@” symbol is displayed on the screen. This will interrupt the autoboot sequence and allow the user to access DOS.

| **IMPORTANT:** The <F5> Key must be held down during power up in order to interrupt the autoboot sequence. |
| --- |



* 1. Type “A:” to access the USB drive. The following should display:

| A:\> \_ |
| --- |

| **NOTE:** If the Error message “Not ready reading drive A” shows up, press and hold the Reset button on the USB reader for 5 seconds then hit enter again.      If the error message continually appears after holding the reset button and retrying, try using a different brand and/or size USB drive. |
| --- |

* 1. Type “dir” and press <Enter> to see what files are on the USB drive. Take note of the name of the new software. The screen should look similar to below:

| A:\> dir  Volume in drive A has no label  Volume Serial Number is 2C58-E322  Directory of A:\  D750 EXE 51,463 12-13-16  1 file(s) 51,463 bytes |
| --- |

* 1. Type “copy” then the name of the new files (“D750.EXE” for example) and “c:” and press <ENTER>. This should look like the below:

| A:\> copy D750.exe c:  1 file(s) copied |
| --- |

* 1. Enter “dir”. There should be the newer software copied to the C: drive.

| A:\> c:  C:\>dir  Volume in drive C is MS-DOS\_6 Volume Serial Number is 2C58-E322 Directory of C:\  D750 EXE 51,463 12-13-18 D750 DTA 2,000 12-01-16 Autoexec BAT 50 12-01-16  3 file(s) 53,463 bytes |
| --- |

* 1. The parameters and settings for the coil as well as timers, lengths, etc. are saved under the data file ([FileName].dta). Whenever a new software is installed, the old .dta file needs to either be deleted or renamed, because it may cause corruption to the file when the system uses the new software. We will rename the file in this example so if we ever need to revert to the old software, all the settings are saved under the old .dta file. A new data file will be created automatically when the computer loads the new software.

| A:\> c:  C:\>dir  Volume in drive C is MS-DOS\_6 Volume Serial Number is 2C58-E322 Directory of C:\  D750 EXE 51,463 12-13-18 D750 DTA 2,000 12-01-16 Autoexec BAT 50 12-01-16  3 file(s) 53,463 bytes |
| --- |

* 1. Rename the old data file by entering “rename [OldfFileName].dta [NewFileName].dta”. Using the example below, the data file is named D2K, so the command would be “rename D2K.dat D2Kold.dta”

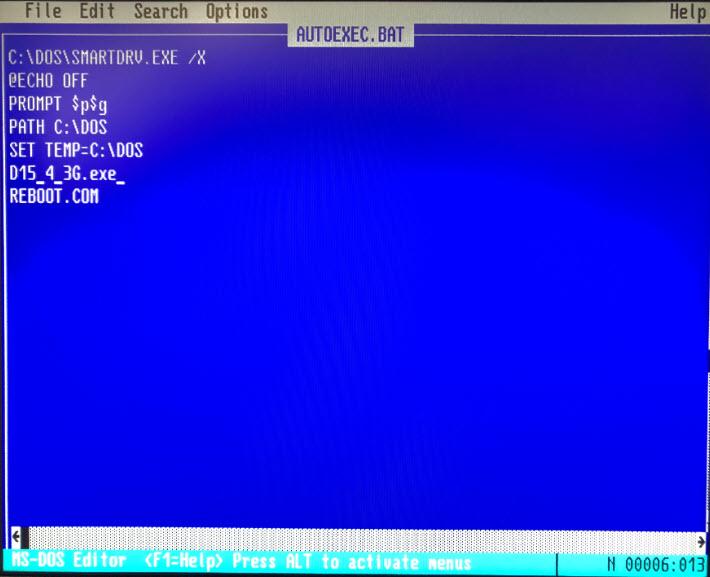
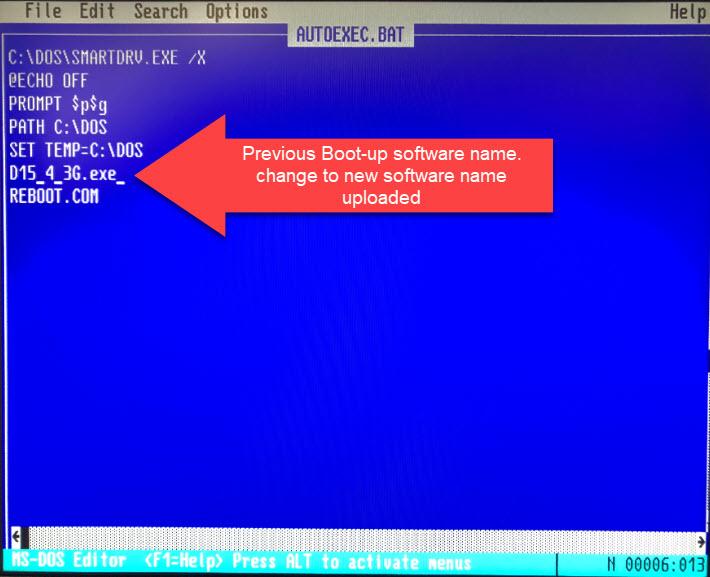
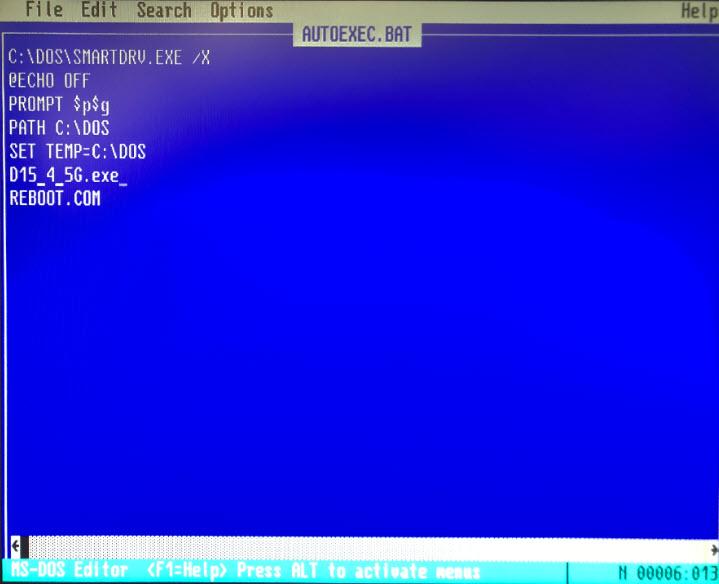
| D750 EXE 51,463 12-13-18 D750 DTA 2,000 12-01-16 Autoexec BAT 50 12-01-16  3 file(s) 53,463 bytes  C:\>rename D750.dta D750old.dta |
| --- |

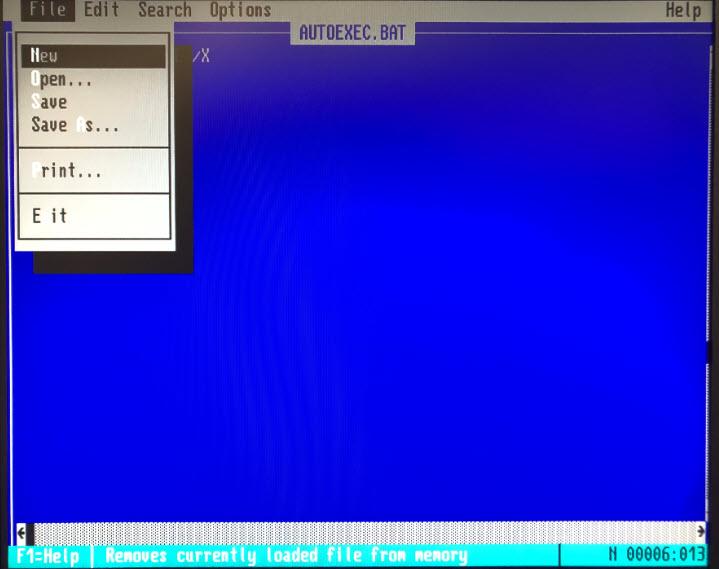
* 1. Enter “dir” in the C: directory to confirm data file has been renamed.

| C:\>dir  Volume in drive C is MS-DOS\_6 Volume Serial Number is 2C58-E322 Directory of C:\  D750 EXE 51,463 12-13-18 D750old DTA 2,000 12-01-16 Autoexec BAT 50 12-01-16  2 file(s) 53,463 bytes |
| --- |

* 1. The AUTOEXEC.BAT loads a specific program after restarting the computer or machine. The Autoexec.bat will need to be adjusted so the newer program loads and not the previous one upon restart.
  2. Enter “edit autoexec.bat” to modify the .bat file.

| C:\>dir  Volume in drive C is MS-DOS\_6 Volume Serial Number is 2C58-E322 Directory of C:\  D750 EXE 51,463 12-13-18 D750old DTA 2,000 12-01-16 Autoexec BAT 50 12-01-16  3 file(s) 53,463 bytes  C:\>edit autoexec.bat |
| --- |

* 1. The following screen will display:  
     
  2. The second to last line (above REBOOT.COM) is the .EXE file name that loads after reset. This name needs to be changed to the desired software name. In this example, we will change “D15\_4\_3G.exe” to “D15\_4\_5G.exe”  
     
  3. Updated autoexec.bat after renaming .exe file to “D15\_4\_5G.exe”:
  4. Press “Alt” and “F” to open the file tab, then press “S” to save changes.



* 1. Press “Alt” and “F” to open the file tab, then press “X” to exit.
  2. This concludes updating the back end software. Restart the system and the new software should automatically boot.This should overwrite the current program.

### Cycle power on the machine

* 1. Turn main breaker OFF, allow machine to power down.
  2. Turn main breaker ON. The machine should boot automatically into the new program.