

Summary	Upgrading system 4 controller operational software				
Products Affected	All system 4 controllers				
Key Word Tags	Sys4, Software, Upgrade				
Tools/Equipment (If Required)	Phillips Screw Driver				
Parts/Materials (If Required)	4gb USB stick with software loaded onto it.				
Related Media					
Author	Sean C. Morrison	Issue Date	10/1/21	Status	Active

Please Read The Entire Bulletin Before Proceeding

Periodic updates to the System 4 controller software are sent from Rytec on a USB drive, via traditional mail; they may also be sent as attachments to an e-mail. The updates are downloaded to the controller through the USB port on the top right side of the microcontroller board.

There are two files, and both must be downloaded. One is named with the version number of the new system software (for example: TST FU3R-RY V02-03.20.bin). The other is named tst_FU3r.bin. These files cannot be opened.

NOTE: If there are additional files attached to the e-mail named APPL0001, APPL0002, etc., these are parameter files that must also be downloaded. Reference *Service Bulletin 266* for the steps to do this.

This bulletin will tell you when to do this as part of a software update.

This procedure explains how to install the new software.

Step 1: Prep and load a USB drive with the updated software

(skip this step if you receive a USB drive from Rytec)

NOTE: This step may be done at the home office rather than in the field.

NOTE: some e-mail servers truncate the filename extensions from **.bin** to **.bi_**. Make sure you change the extension back to **.bin** before plugging the USB drive into the controller port.

1. Get a new, blank USB drive and reformat it as a FAT32 disk.
2. Download the software attachments onto the USB drive. If there are parameter as well as system files, put all attachments on the same disk.
3. If necessary, change the filename extensions from **.bi_** to **.bin**.

Step 2: Record parameter values that will be erased by the update, and which you will later manually restore

1. Go to parameter P.999 and set the value to 10 to access service level parameters.
2. Go to parameter P.991 (Door Profile) and record the value.
3. On wireless doors, go to parameter P.F07 (Mobile Unit Address) and record the value.
NOTE: this is a four- or five-digit hexadecimal number, so it may include both numbers and letters.
4. Power down the controller and wait for 5 minutes.



The disconnect must be in the OFF position and properly locked and tagged before performing the next step of the procedure.

Step 3: Load the USB drive with the updated software

1. Open the control box.
2. If there is a USB drive in the controller port, remove it.
3. Plug in the USB drive with the updated software.
4. Close the control box cover and restore power to the controller.

Step 4: Download the software into the controller

1. Switch to parameter mode, go to parameter P.999 and set the value to 10 to access Service level parameters.
2. Go to parameter P.989. You should see the word “select” and an UP ARROW icon.
NOTE: if you don’t, make sure the USB drive is firmly seated in the port.
3. Press the RESET button, then the UP ARROW. You should see the version number of the software update scrolling across the display. Make sure it matches the version number you expect.
4. Press and hold the RESET button until you see a blinking dot or the word “Bootloader” in the display.
NOTE: the blinking dot indicates the controller is reading the USB drive. “Bootloader” indicates the download has begun.
NOTE: the controller will display “I904 Prog.” and the progress percentage while it erases the old software, then “I905 Prog.” and the progress percentage while it installs the update.
5. When the update is complete, the controller returns to run mode and displays an F.964 New Program error code. This is the expected result.
6. Switch to parameter mode, go to parameter P.999 and set the value to 10 to access Service level parameters.
7. When you return to the parameter side, the controller goes directly to parameter P.990 (Factory Settings).
8. Set the value of parameter P.990 to 1. The display shows “Factory Default” while the controller sets the default parameter values for the new operating system.
NOTE: this may take several minutes.

9. When the controller is finished, it goes directly to parameter P.991 (Door Profile). The display shows a dash.
10. Set the value of parameter P.991 to the value you recorded back in Step 1. The display shows "Factory Default" while the controller sets the default parameter values for the door profile.
11. When the controller is finished, it goes directly to parameter P.000 or P.001.
12. **If you have parameter files on the USB drive** to download, follow the steps in *Service Bulletin 266* to download them.
13. **If this is a wireless door**, go to parameter P.F07 (Mobile Unit Address) and set the value to the value you recorded back in Step 1.
NOTE: this is a large number, so you will have to hold the UP ARROW down for a considerable time to reach it.
14. Exit parameters.
15. The controller takes you directly to the first step for setting limits for the door. Set the limits, then test the door.
NOTE: if you see error messages while testing the door, and you updated parameter files as part of this procedure, the error messages indicate that the updated parameters require Rytec level access rather than Service level access. Contact Rytec Technical Support for assistance in getting a Rytec level password, then repeat the steps from *Service Bulletin 266*.
16. Make sure the control box cover is secured.

If you have any questions please contact Rytec Technical Support at 1-800-628-1909