



GTEC UPS MODEL:

ZP120N 10 kVA – 3Ph

Firmware Update Standard Operating Procedure

SERVICE MANUAL

Firmware Update SOP(Through RS232 Port)

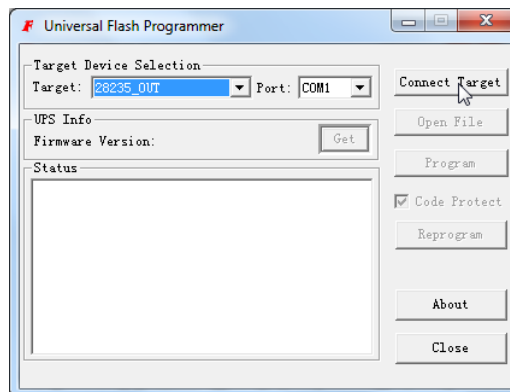
1. How to update firmware

Step 1: Connect the UPS to PC COM by RS232 Cable

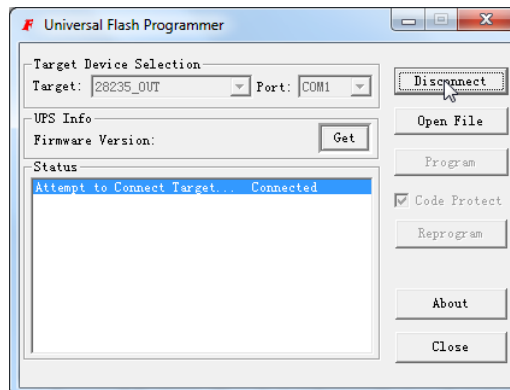
Step 2: Apply utility to UPS, verify UPS works in bypass mode

Step 3: Open the software we sent you: Universal Flash Programmer ,choose target :

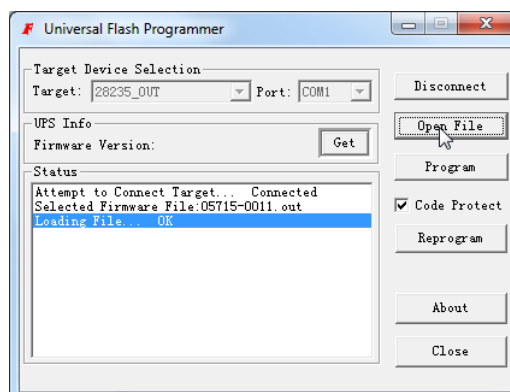
"28235_OUT", choose PC COM port that RS232 cable use to communicate with UPS.



Step 4: Click the "Connect Targets" Button. The dialog box will show the status. This "Connected" only means the tool get the serial port from computer successfully. The communication between UPS and computer is uncertain by now.



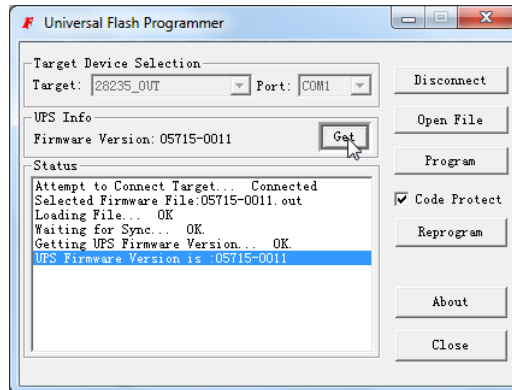
Step 5: Click "Open File" Button. Open the out file which will be updated. Here, the out file name is **05713-0011.out**.



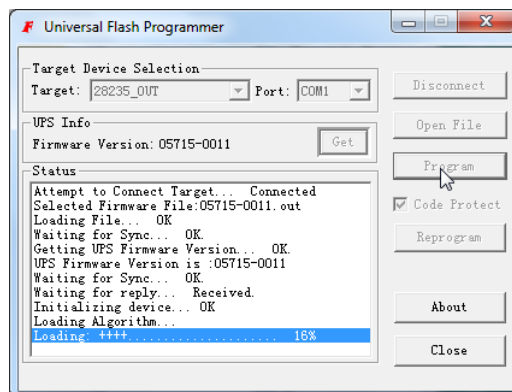
Optional Step: This step is optional. The purpose is to get current UPS Firmware version and

check the communication between UPS and PC is OK or not. The execution of this step will not affect normal flash. To get the firmware version, click "Get" button and wait several seconds.

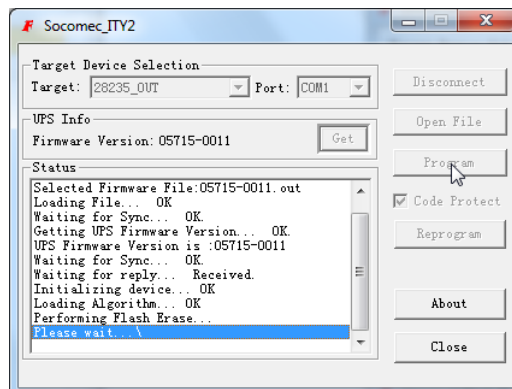
- a) If the dialog box shows current USP firmware version, the communication is OK
- b) If the dialog box did not show current UPS firmware version, there maybe something wrong with the communication, so please check the RS232 cable.



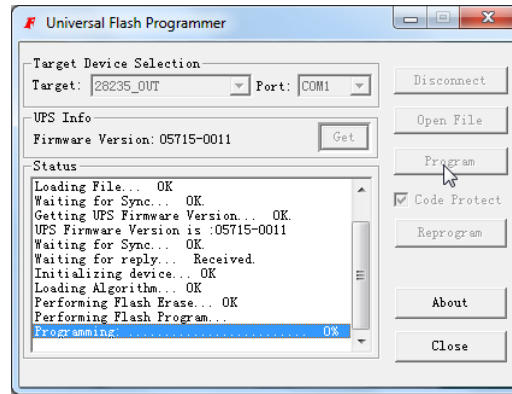
Step 6: Click the "Program" Button to start algorithm loading. (Some UPS will send sync command before loading while some UPS will not send)



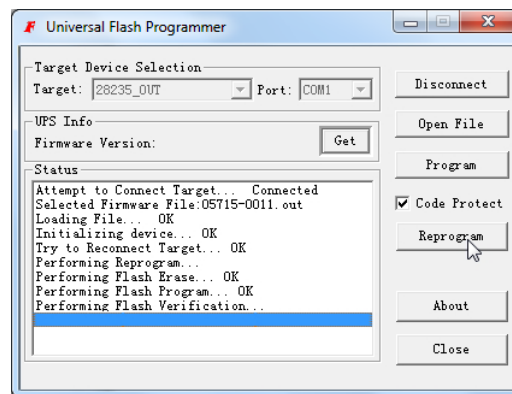
Step 7: After Loading algorithm is finished. Computer will send command to let DSP do erase operation. From now on , DSP will update firmware automatically , you just need to monitor the operate status .



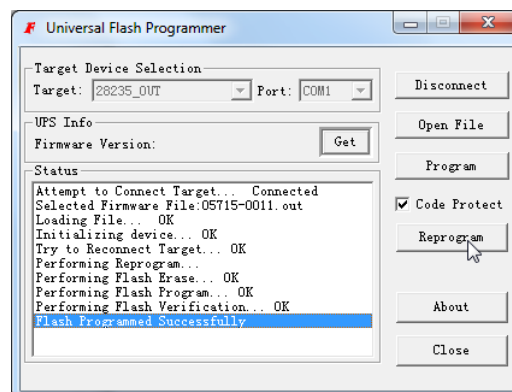
Step 8: After successful erase, computer will command UPS to do program operation.



Step 9: Then, do verification.



Step 10: Firmware updated succeed, dialog box will show “Flash Programmed Successfully”. After several seconds, UPS will shut down automatically

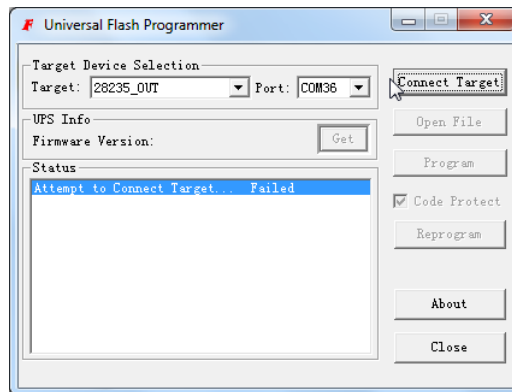


2. Troubleshooting

Problem 1: Could not open serial port.

Possible cause: Other software has occupied the serial port.

Remedy: Close other communication software or restart the computer.



Problem 2: Could not transport algorithm

Possible cause: Computer could not communicate with UPS

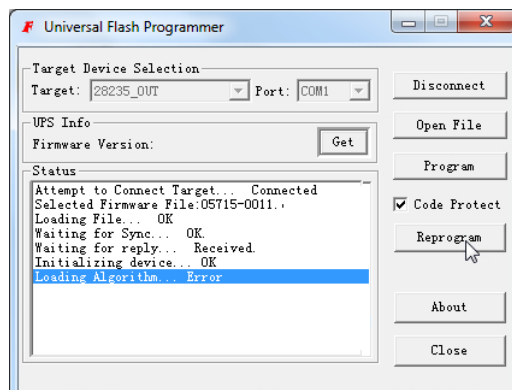
Remedy:

1) If computer give this error at the beginning of this step, that means computer could not communicate with UPS. You should check the cable and the connection, and use Access Port to send the command Q1 to make sure ups can communicate with computer. Then begin from step 4.

2) If computer give this error during the transport process, for example, has send 20%. That means the cable or the connection have some problems.

a) First, remove utility to shut down UPS.

b) Then apply utility to UPS, begin from step 2.



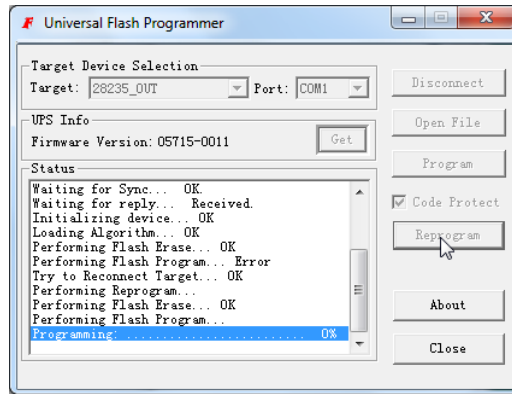
Problem 3: Get error during erase/flash/verification operation.

Possible cause: Something is wrong with communication between UPS and PC.

Remedy: a) Check the cable and the connection.

b) Wait 2 minutes

c) Click "Reprogram" button again. DSP will start from erase process again.



Problem 4: Programmer is closed accidentally during erase/flash/verification operation.

Possible cause: Something is wrong with PC.

Remedy: Check the cable and the connection.

- a) Reopen Programmer.exe
- b) Choose target and COM Port like step3 describes
- c) Click "Connect" button
- d) Click "Open File", choose **05713-0011.out**.
- e) Wait 2 minutes. **Do NOT click "Program" button.**
- f) If "Program" button is clicked accidentally, wait another 2 minutes
- g) Click "Reprogram" button. DSP will start from step(9) erase operation again.

