

PGM-IR Flashing Memory

As updates to the instrument's firmware become available, the instrument can be upgraded by flashing its memory as described below.

Items Required:

- 9-pin-Female to 9-pin-Male Serial Cable (P/N 104-4027)
- Flash Utility Software and Latest Firmware Image File
(downloaded from Website <https://www.mybacharach.com/product-support/manuals-downloads/>)
- Personal computer:
 - Running Windows® 95/98/2000/NT/XP/Vista/Windows 7
 - Open COM port

Procedure:

1. Connect one end of a 9-pin female to 9-pin male serial cable to the instrument's top panel RS-232 connector.
2. Connect the other end of the cable to and an open COM port connector on the computer (it may be necessary to use a 9-pin to 25-pin adapter to make the computer connection).

NOTE: COM1 is the default port used by the Flash Memory Program. If COM1 is already in use by another device, then connect the instrument to the next available COM port. The software will need to be reconfigured as described in Step 9 to use this port.

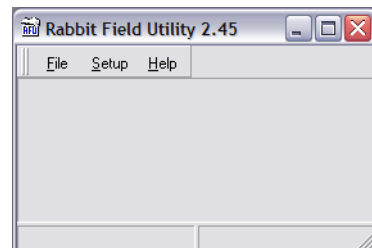
3. With the instrument turned OFF, set DIP switches 1, 2, and 3 located on the instrument's main PC Board to their UP positions.



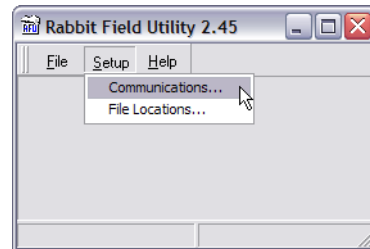
4. Turn ON the instrument. Observe that the pump does not start and that all 3 indicators (ON, FAULT, ALARM) on the front panel display are all illuminated.

NOTE: The following steps assume that the operator is familiar with the Windows Operating System, and is knowledgeable in creating folders, copying files, and navigating the file system using Windows Explorer. If necessary, refer to the Windows help files for information on performing these operations.

5. Create a folder on the computer's hard drive named "C:\RFU" (Rabbit Field Utility).
6. Copy the flash utility software and the latest firmware image file (*xxx.bin* – where "xxx" is the name and version number of the file) into the folder created in Step 5.
7. From the C:\RFU folder, run the flash memory program by double clicking the file *rfu.exe*.



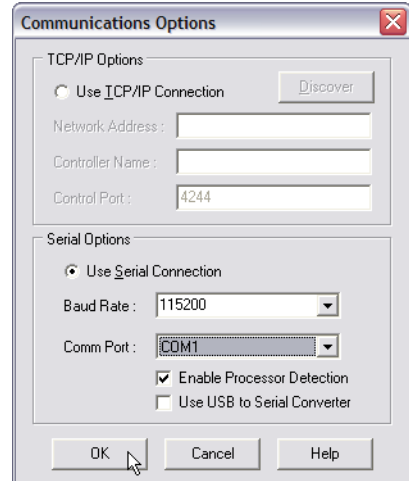
8. Select *Setup > Communications*.



9. Under “Serial Options”, select *Use Serial Connection*. Then set the Baud Rate to *115200*, and select *Enable Processor Detection*.

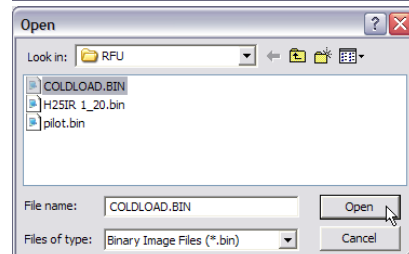
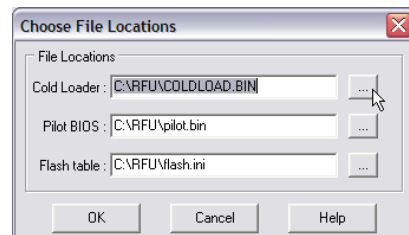
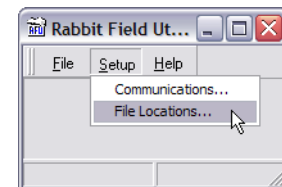
Note that *COM1* is the default Comm Port. If necessary, change the Comm Port to match the port that the instrument was connected to in Step 2.

Click *OK*.

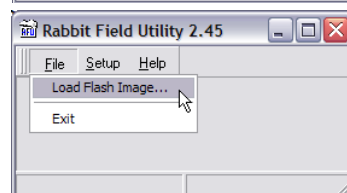


10. Select *Setup > File Locations* and verify that the *coldload.bin*, *pilot.bin*, and *flash.ini* files are all located in the *C:\RFU* folder.

Click *OK* if these files are in the correct folder. If necessary, use the browse buttons in the Choose File Locations dialog box to locate each of these files.



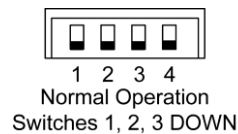
11. Select *File > Load Flash Image*.



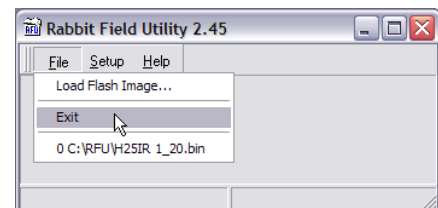
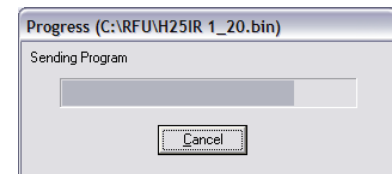
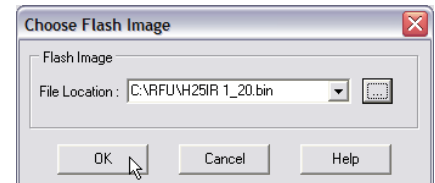
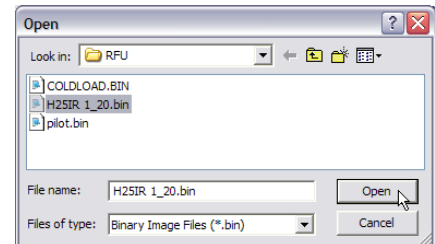
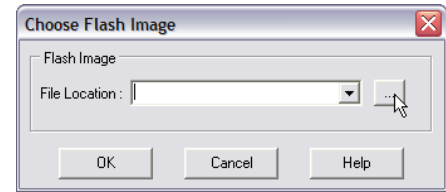
1. Click the browse button in the Choose Flash Image dialog box; navigate to the C:\RFU folder; and then highlight the bin file of the new firmware's flash image file. In this example, the file *H256IR 1_20.bin* will be loaded. (Although this file is for the H25IR, the process is the same.)

Click *Open*.

2. Click *OK* to begin the flashing process.
3. A progress-dialog box will appear during the flashing process, and will disappear when the flashing process is complete.
4. Exit the flash program; turn OFF the instrument; remove the serial cable; and reset the DIP switches back to their normal operation positions.



5. Turn ON the instrument. Resume normal operation.



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