

## **Firmware Update & Factory Reset your Spektrum AR630 series BNF or off-the- shelf receiver**

This article shows how to reset a BNF Spektrum receiver back to factory settings: as if new off-the-shelf. Many Spektrum BNF receivers can be factory reset, but some cannot. For this article, we will be talking about the AR630, AR631, and AR637T line of receivers. If the receiver is from a BNF, it will typically have a letter at the end (for example AR637T, not BNF – AR637TA = BNF). If you have a different receiver model from an older BNF, you will need to check to see if you can flash (reset) the receiver you have back to the factory setting.

My experience has been that any Spektrum Air receiver that has built-in Telemetry capability is capable of accepting firmware updates and the factory reset through SPEKTRUM FORWARD PROGRAMMING on **your transmitter**. Your Spektrum receiver has to be a model that includes Spektrum's 'forward programming' capability. Check your model first if different from those mentioned above and verify that it is a forward programming capable Spektrum receiver.

*Please Note:* These transmitters do not support Forward Programming devices: DX6i, DX6G2 (EU Version), DX7, DX7S, DX7SE, DX7G2 (EU Version), DX8, Non-computer transmitters

I have read a few posts that suggest that the AR636(A/B) series of receivers, which were never sold outside a BNF plane, can be reset using this method. One such post can be viewed here and only pertains to the AR636 variations.

<https://www.rcgroups.com/forums/showthread.php?2899256-Modify-Settings-on-an-AR636-SAFE-Select-Receiver>

However, I have not tried this on an AR636(A/B) receiver(s) and previously had been told by Horizon Hobby support that the firmware upgrade is not possible. That said, Gordon C has followed the rcgroups procedure and found it to work.

I have successfully executed the update, reset, and programming on AR631's and AR637T(A) receivers following the steps listed below.

### **Required Items to Update the Firmware:**

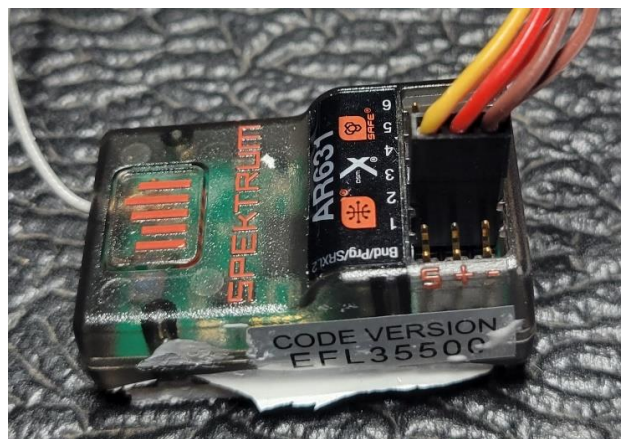
**The following items you will need to purchase or access to complete the steps needed to update, reset, and re-program and Spektrum BNF RX or to update a Spektrum RX that was purchased outside of a BNF.**

- You will need a Spektrum SPMA3065 programming cable and a Spektrum Forward Programmable capable RX. You can order the cable from Horizon Hobby.
- You need a receiver from a BNF plane that is no longer in use or a newly purchased Spektrum receiver.

- You need to have a Spektrum transmitter capable of forward programming. If you do see the option to use **forward programming** on your Spektrum Transmitter when bound to an updated Spektrum receiver, you will need to update the firmware on your Spektrum TX before the option to use forward programming with our newly flashed RX will appear.

## Procedure to Update the Firmware:

- 1) Download the Spektrum Programmer software to your PC. You can find the file many places if googled but here is a link that works:  
[http://spektrumrc.cachefly.net/apps/spektrum\\_programmer.html](http://spektrumrc.cachefly.net/apps/spektrum_programmer.html) - Video on how to install and use the programmer software.  
<https://www.youtube.com/watch?v=QPzOB6DH36Y> .
- 2) You will need to create an account on SpektrumRc.com.
- 3) Once you have created your account, you will need to register the receiver you wish to flash in your new Spektrum account.
- 4) Plug the SPMA3065 cable into your USB port on your pc so Windows can recognize the device and set up drivers for it, if needed.
- 5) Log in to the Spektrum Programmer using your Spektrum account.
- 6) Once the program is running, plug the opposite end of the SPMA3065 cable into the receiver **bind/program port**. Make sure you observe the correct polarity. Lightest colored wire to the numbered side of the receiver. See the photo below for an example of the polarity.



- 7) In the Spektrum programmer app, look at the upper right of the screen, there you will see a check box to power cable; check this box. **PROVIDE NO OTHER POWER SOURCE TO THE RX.**
- 8) If the receiver does not show up on the screen with the version number and serial number, click connect and it should.
- 9) The software should tell you if there is an update for the firmware. It may say you are at the current level, which it did with me. Firmware revisions change with time. If you are at the current level, then there is nothing to flash, therefore you will not be able to unlock your BNF receiver. If you cannot unlock it by flashing the firmware to the newest revision, you cannot **reset** it back to the factory configuration. If you cannot reset it back to factory configuration then you will not be able to use the Factory Reset option in Forward Programming. At this point, the receiver remains locked not allowing access to the reset option under forward programming. However, you can get around it.
- 10) If the software reports the receiver is at the current firmware version choose “load a different version” of the firmware. Choose a revision a level or two behind the current revision of your receiver. Then flash the receiver with the older version. When the installation completes, depending on the revision you installed, load the newer versions one at a time until you load the most current version. Now you should be at the highest level of firmware for your receiver.
- 11) Uncheck the **power receiver** box at the top right of the screen and disconnect the **SPMA3065** cable using the proper Windows procedure for unmounting a USB stick.
- 12) All remaining steps are through the transmitter using forward programming. When you go to forward programming (Transmitter powered, receiver on, and bound) you should see “Gyro setting” and “other settings”, “Other setting” will be where you find the factory reset. Here is where you would simply select the reset option in Forward Programming (I suggest backing up the receiver before resetting) and when done, your receiver is as if it came from the hobby shop as new; only better! It has the current firmware level on it, and you know it because you did it. Although off-the-shelf receivers are not BNF receivers they can be behind a firmware revision level or two when purchased. If too far behind, forward programming will not be available.
- 13) Look at this video >>> <https://youtu.be/F3isbv1U8eM>
- 14) Tom’s video here is specific to the AR636. **The AR636 receiver does not have Spektrums forward programming built in.** >>>>> <https://youtu.be/7Np6CBNF0ZI>

Here is a video playlist on how to program an open stock AR637T or factory reset AR637TA - <https://www.youtube.com/playlist?list=PL3xicOtuJ600AEzUjw7Q03tC4aRD-8T-2>

The link above shows the “AR637TA”, Spektrum chose to use this receiver as the example because it ONLY comes in BNF. These instructions and provided videos should work with any of the newer receivers that have forward programming capabilities. As a reminder, the forward programming option is NOT part of the transmitter. The transmitter needs to be a model that supports forward programming and the firmware on the transmitter also needs to be at a revision level high enough to support it. The programming options under forward programming on the transmitter are internal to the receiver. The transmitter gains access to forward programming as did your computer before the release of forward programming.

This should get you going. If you hit a snag look at the steps again.

Note: the receiver needs to be bound to the transmitter you are using so the reset can take place. You will also have the option to backup what is on the receiver before wiping it out. I strongly suggest backups.

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Respectfully submitted by JayZ