



Connecting Your Radio and Using it with RealFlight

Connecting your radio

Depending on which version of RealFlight you have, you will connect your radio to your PC using either the InterLink's interface port or the RealFlight Interface device. We'll use the term "interface" from here out.

You must have your radio on to use it with RealFlight. Remember to turn it off when you are done, to save the batteries.

Your interface has a reset button on it. You'll need to press this button every time you start up RealFlight, so that it can validate the connection to your radio.

You can also tap the reset button to reset the aircraft or hold it down to enter "Rewind" mode, which lets you rewind through your current flight.

Calibrating

Once your transmitter is connected it is very important that you calibrate it. Calibration tells RealFlight important information about how your transmitter works.

Virtual Channels

RealFlight is designed for an 8 channel radio system. Since many customers have radios with fewer than 8 channels, we've set up some channels to also work with the keyboard.

Key	Channel	Type
Y	5	On/Off Switch
U	6	Knob
I	7	On/Off Switch
O	8	3-Position Switch

The On/Off switches are simple: press the key to toggle the switch from one extreme to the other.

The Knob is emulated in the following manner:

- Tap the “U” key to quickly swap the knob’s position to fully clockwise or fully counter-clockwise.
- Press and hold the “U” key down to smoothly rotate the knob.

The 3-Position switch is emulated in the following manner:

- Tap the “O” key to quickly toggle the switch between the low and high positions.
- Press and hold the “O” key down to put the switch in the middle position.

The Radio Gadget

Press the “2” key on your keyboard to bring up the Radio Gadget. This will show you what RealFlight thinks your radio is doing. It is very helpful in diagnosing problems.

The Software Radio

RealFlight has a sophisticated computer radio simulation programmed for each model, called the “Software Radio”. Most users find this convenient. Some would rather use the computer radio features on their own transmitter.

There are essentially three ways in which you can use your radio with RealFlight:

- Fully enable the Software Radio. This is the easiest way to proceed.
- Use the rates and expo of your own radio. This is a good choice for advanced users who want triple rates or like to control the expo curves with their transmitter. The Software Radio will only handle the mixes.
- Avoid the Software Radio altogether. Create a custom model memory for every model you plan to fly in RealFlight. The Software Radio will be disabled. This is for power users only.

It’s also possible to use a combination of these methods.

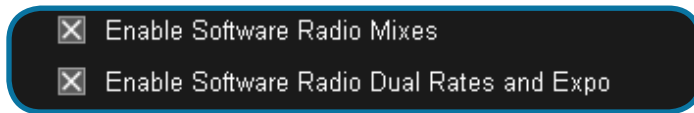
Method 1: Fully Enable the Software Radio

In this mode Realflight will use its sophisticated Software Radio to emulate a computer radio’s rate, expo, and mixing functions, and will automatically load the correct Software Radio settings for each individual model every time you switch aircraft.

This is by far the easiest option to use. It’s what we recommend.

For this method to work it is important that your radio is set to send RealFlight pure, unmodified channel data. **Make sure you do not have rates, expo, reverse, or mixes activated within your radio.**

This method is enabled using these options in the Edit Profile screen:



Most of the default radio profiles are setup to work this way. Pick the profile that matches your radio brand and things should work without any more effort.

If something is backwards and you are very sure you have your radio configured correctly, you can use the Edit Profile dialog to work around the problem.

It bears repeating that it is very important that your radio's rates, expo, and mixes are inactive if you use this method. Otherwise you will be applying your program to RealFlight's program. This will have unpredictable results.

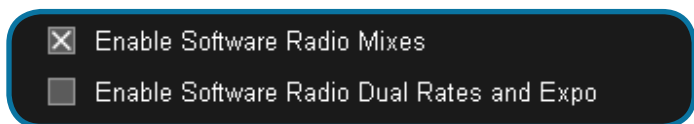
Method 2: Using the rates and expo of your own radio

This is for advanced users.

When you use the rates and mixes on your radio you get to use advanced radio functions like triple rates, conditions, multiple rate switches, etc.

The downside is that you won't have per-model tuned rates. All of the rates and expo will be the same for every aircraft, on the same switches, acting the same way.

This method is enabled using these options in the Edit Profile screen:



You will need to create your own Radio Profile using the Edit Profile screen to use this method.

Advanced Channel 5 Considerations

You can safely skip this section unless:

- Your radio has fewer than 8 channels, **and...**
- You don't use the Challenge or Multiplayer games very often (or at all) **and...**
- You want to use the Channel 5 switch on your radio to do something useful, like actuate retracts.

To make that Channel 5 switch stop collecting dust, create a **custom Radio Profile**.

For example, imagine we have a 7 Channel radio that has a 3-position switch for Channel 5. That 3-Position switch would be a lot easier to use for controlling Idle Up than the “O” key. Here is what the profile would look like:



In the above, the non-existent radio Channel 8 is assigned to the underutilized RealFlight Channel 5. Meanwhile, the radio’s Channel 5 switch controls RealFlight’s Channel 8 (which typically controls Idle Up).

With the above Radio Profile the operator of this 7 Channel radio will not have to use the “O” key for Channel 8. However, he will have to use the “Y” key to control special functions with a handful of RealFlight models.

Method 3: Avoid the Software Radio Altogether

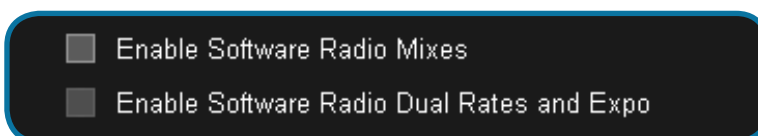
This is for the power user only. Most people who use this method will use the other methods as well.

You will be in complete control of rates, expo, mixes, and all other radio features.

The advantage of this method is that you can use a radio program from one of your real model aircraft and use it to control a model in RealFlight. Some serious competition pilots even modify the RealFlight aircraft, or design new models from scratch, to match their competition planes.

The downside is that you will have to make every part of the radio program from scratch. Also you’ll need a separate computer radio program for each model you want to fly in RealFlight.

This mode is enabled using these options in the Edit Profile screen:



Troubleshooting

RealFlight doesn't recognize my radio.	<ul style="list-style-type: none">• Make sure your radio is on.• Make sure your radio is plugged into the interface• Make sure your interface is plugged into the computer• Make sure your radio's trainer port is enabled, and that it is sending RealFlight a PPM signal.
My controls are reversed.	<ul style="list-style-type: none">• Make sure you do not have a "Channel Reverse" or "Servo Reverse" function enabled in your radio.• You can use the "Edit Profile" dialog within RealFlight to reverse the channel.
My controls are too sensitive. My controls aren't sensitive enough.	<ul style="list-style-type: none">• Make sure your radio is not set up with rates, adjustable travel volume, or some other function that is amplifying your controls.• Make sure your radio is not applying expo.• Use RealFlight's Calibration screen.
When I move a control on my radio, RealFlight thinks I'm moving two controls.	<ul style="list-style-type: none">• Make sure your radio isn't applying a mix.
My controls are swapped.	<ul style="list-style-type: none">• Make sure you do not have any mixes enabled in your radio.• Make sure you have selected the correct Radio Profile for your radio.• If all else fails, edit the Radio Profile to manually swap the channels.

<p>My radio works fine with RealFlight models, but the movement of the sticks in the Radio Gadget doesn't match expectations.</p>	<ul style="list-style-type: none"> • Different people have different ideas about which stick layout is best. RealFlight doesn't know where the sticks are in your radio; it can only see the data stream your radio broadcasts. You can select a different stick layout for the Radio Gadget using the "Gadgets" menu. Look for "Radio Mode". RealFlight defaults to Mode 2, which is the world's most popular stick layout.
<p>Models in RealFlight are out of trim; they always want to turn or dive.</p>	<ul style="list-style-type: none"> • Make sure your radio trims are centered, including "subtrim" if your radio has it. • Use RealFlight's "Calibrate" screen to calibrate your radio.
<p>I can't stop playing!</p>	<ul style="list-style-type: none"> • That's normal. It's important to stay hydrated. Stretch once in awhile. Research also shows that regular social interaction makes for a healthy, happy organism.