

OK this is what I have found out trying to use Joy2Key software and 2 USB adaptors (MHW ProRace 4096 and a VRC 3NT)

Because of the way the USB ' have been designed, we can only use the X and Y axis from each USB. Here we will use one for the Steering and Throttle and the other for the SPACE key assignment.

I tend to use the MHW ProRace for my Throttle and Steering control as it is high resolution and has some software that allows you to reduce the 'jitter' levels on the channels.

I use the VRC 3NT USB for the 'Marshalling' and 'Fuel', as the Joy2key software really only requires to see an ON/OFF signal to activate the L key and SPACE key.

Different transmitters obviously have different terminology for controls etc....then main one to concentrate on are the ones that allow ON/OFF capability.

For instance, my Futaba T3VCS stick tranny (also the 3PKs by the way) I have to map channel 3 to the control I require...on the T3VCS I have managed to map to trim, switch AND button. It is very versatile.

One thing to note...on the T3VCS I am currently using a 40 MHz HRS receiver. I do have a Spektrum HRS receiver/module combo, but to attain the high HRS speeds, they have DISABLED the 3<sup>rd</sup> channel. Hence I use the 40MHz....strangely enough, the speeds are almost the same but I can use 3 channels. So with your kit ALWAYS CHECK TO SEE WHAT ITS CAPABLE OF.

Also with the TRVCS there is no way to turn off the 3<sup>rd</sup> channel (I might be wrong so if you know otherwise, message me).....again ALWAYS CHECK TO SEE WHAT ITS CAPABLE OF.

I also have the FASST receiver/module combo, but the reported speeds are slower...I will document the setup of this one further in the document, so don't worry.

Speeds....

As you will see...the equipment you use DOES EFFECT THE SPEEDS AND CAPABILITY.

These are for the same transmitter with different receiver/module combinations.

TRVCS (in HRS mode) with Spektrum receiver and module (HRS SR3000HRS and SM1000HRS)...280 (2 channel only so can't map 3<sup>rd</sup> channel to SPACE)

T3VCS (in HRS mode) with 40MHz HRS receiver and module (R203HF) ....255 (3 channels working so a slightly slower speed but allows 3<sup>rd</sup> channel mapping)

T3VCS (in HRS mode) with FASST module and receiver...200 (3 channels working so a slightly slower speed but allows 3<sup>rd</sup> channel mapping)

T3VCS (in **PPM** mode) with Spektrum PPM receiver and module (SR3001 PRO and SM1001 PRO)....71

The main thing here is the setup of the Joy2key software....once setup, VRCPRO should work.

Setting up the Joy2key software CAN be a bit fiddly and even the order you turn things on / connect things might matter.

I tend to use both Control Panel>Calibration AND Notepad to check the results for the Joy2key software.

**The aim is, to get the transmitter, using Channel 3, to send an ON/OFF signal to the receiver.**

Control panel is used to make sure the 3<sup>rd</sup> channel is being seen and that the switch is working the way we want.

In Control Panel > Game USB SETUP > Calibration...hopefully you will see the small cross jumping from one side of the screen to the other once the channel 3 is working.

In Notepad, you will see the 'Spacebar' being used when you have correctly mapped the switch etc to SPACE IN THE JOY2KEY Software.

So in brief.....we have to

1. Setup the tranny to use the 3<sup>rd</sup> channel
2. Setup the tranny to use Channel 3 on the desired switch
3. Setup the tranny to use the switch in an ON/OFF mode
4. Setup the Joy2key software to recognise the correct USB
5. Set the X (or Y) axis to be SPACE
6. Check operation in both Control panel and Notepad
7. Check operation in VRC PRO
8. RACE and save precious seconds

We can also set the Joy2key software to activate the L (Fuel) key ....if you have 4 Channels, use the method above to map the 4<sup>th</sup> channel (note, you will have to figure out 2 ON/OFF capabilities on the tranny.... One for SPACE (as above) and one for L.

If you only have 3 channels, you can still map the L key to the Y axis in its down movement...sneaky this, In Joy2key, in effect you set L to be 'autofiring' when the Y axis is negative, so theoretically, you are asking to refuel every time you brake on the track...but your on the track, so it won't. Once your in the pits, IT WILL. As you only need the L button when your in the Pits...all you have to do is brake to activate it while your in the pits.

## 1. Setup the tranny to use the 3<sup>rd</sup> channel

Different transmitters do this different ways. As I have found out, also the receiver and module can actually determine whether the 3<sup>rd</sup> channel is actually available....SO ALWAYS CHECK THIS FIRST.

Once you have verified that CH 3 is available have a look through you instructions to see exactly where you can use it....on a switch, on a trim etc. A quick way to find this out is to go to the control for the switch and change the setting for it and run through everything that can be assigned to it...the main one to watch out for is CH3.

Here I will explain using my Futaba T3VCS....

### **I want to assign the CH3 to SW1**

If I go to my Menu 2, I can see FUNC-DL and FUNC-SW.....these are basically to assign the FUNCtions of the Switch and Dial's on the tranny.

Here I will select FUNC-SW...( **I want to assign the CH3 to SW1**)...which is basically a sprung loaded toggle twitch...I push it up, it springs back.

All I have to do is for SW1 set it to be CH3 and NOR

Using the SW1 it only requires the one press, as it will **automatically** return.

That's it for the Switch, as its operation is for and ON/OFF switch anyway. Assigning to a trim is a little more complicated.....

### **I want to assign the CH3 to DT3 (Digital Trim 3)**

If I go to my Menu 2, I can see FUNC-DL

Here I will select FUNC-DL...( **I want to assign the CH3 to DT3**). Note, the nature of this switch is different to SW1 and its operation is different too to use the SPACE.

Here I have to navigate to the DT3 option (press the 'Down' button on the tranny until you see a flashing arrow next to the DT3 and the first column).

Set the first column to CH3 by pressing the + and – buttons.

Press the 'Down' button again to navigate to the 2<sup>nd</sup> column....press the + or- until it says '2PS'....this is basically a 2 position switch now.

Press the 'End' button to exit the setting mode.

On the T3VCS digital display, you will see CH3 on the list in the right....if you use the trim switch, you will see it change to +100 if you push it up and -100 if you pull it down. To activate the SPACE...you will need to go from -100 to +100 and back to -100.....so that's an up AND down movement.

Using the SW1 it only requires the one press, as it will **automatically** return

You can use the same method to assign SPACE to BT1 and BT2 (button one and 2), but you will have to operate them in a similar way to the Digital Trim operation....i.e. press one and then the other to operate the SPACE.

To get this working now with the Joy2Key software....

Ok, I am going to assume you are using 2 USB's at this point

Plug in one of them...the one you want to use for the steering and throttle and plug it into your receiver as per normal...steering to channel 1 and throttle to channel 2.

Don't plug in the 2<sup>nd</sup> USB just yet, but you can put the servo plug that you think is the 'steering' channel into Channel 3 in the receiver.

Now start the Joy2Key software....

In joy2key you should see 1 Joystick...if not move the USB to another port.

Now you should see 'Joystick 1' in the software....this one (at the moment) we don't want to do anything with...we are going to use the X and Y axis for the steering and throttle.

You can check it is being seen using the game controller settings

Next, plug the 2<sup>nd</sup> USB into the PC....

On the right of the Joy2Key software...select the 'Others' TAB and increase the 'Number of Joysticks to Configure' to 2 and press the Enter key

Now select 'Joystick 2' TAB

Select 'LEFT' and then the 'Auto Setting Wizard' button at the bottom of the page

Press the Spacebar 4 times and it should assign SPACE to the Left, Right Up and Down for Joystick 2...then press the Exit button. (assigning it to both X and Y should mean it doesn't matter which servo cable you have plugged in to channel 3 on your receiver).

To check this has been applied and is working.. to do this, I use Control Panel > Devices and Printers....and right click the USB controller....then select 'Game controller settings' ....then select Properties.

You should see white square with a small black cross in it. If you operate your switch on the transmitter (here I use SW 1) you should see the cross shoot from one side of the screen to the other and back. If you are using the trim switch you will see a movement for the up and another movement for the down.

If this is working, you have managed to assign the CH3 correctly AND map the CH3 movement in Joy2Key. If not something is wrong and you need to go back and check.

To make sure that the Joy2Key is actually using the SPACE...Open Notepad (or a text editing piece of software) make sure the cursor is on the page and press the SPACE on your keyboard the cursor

should move to the right....now press your switch on the tranny and you should see the same movement.

That's is....now go and check it in VRC PRO.

### A couple of things to remember when using this method.

1. Each Model memory WILL require the CH3 mapping to the switch you require to use
2. YOU MUST HAVE THE JOY2KEY SOFTWARE RUNNING WHILE YOU PLAY VRC PRO
3. Always check the operation using Notepad etc to make sure it is functioning properly (space) before you start VRC PRO...my T3VCS often reverts back to PPM mode by itself and it doesn't function correctly....I have to switch it back to HRS.

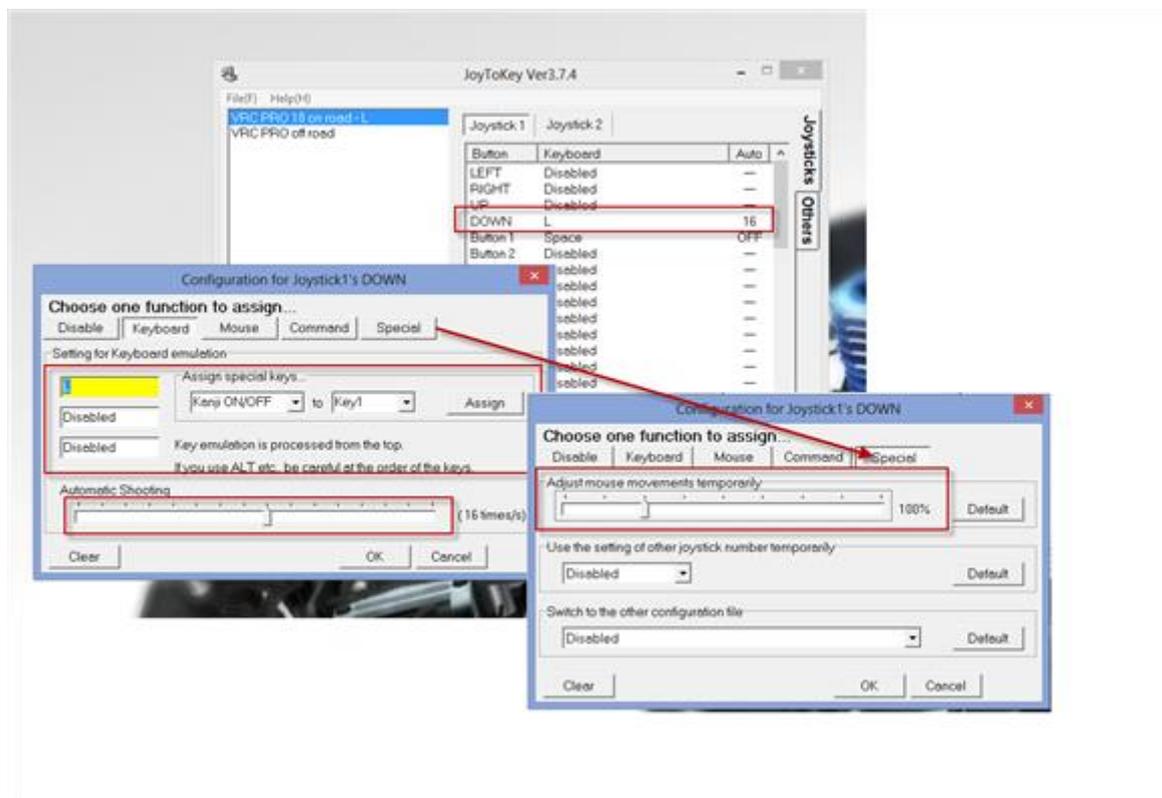
### To assign the L for refuel....

If you have a 4 channel system, you can repeat the above and assign CH4 to the UP and DOWN in Joy2Key software for Joystick 2. Please note you will have to find another function that mimics ON/OFF and assign it to CH4.

If you only have 3 channels to play with, you can assign the 'L' key to the Down function on the Joystick 1

In effect, doing this means that every time you brake, you are also asking it to refuel your car....but because you are still on the track (at the moment) VRC ignores it. However....when you come into the Pits and brake it doesn't...so you end up getting refuelled.

In Joy2Key follow the diagram below to set this....



Useful setting for other transmitters

AS IT SEEMS KEY TO IDENTIFY TO OPERATIONS ON TRANSMITTERS THAT ARE ON/OFF...here are some I have found.

**KO PROPO ESPRIT III Universe**

Switch

Button

ET LEVER

**Futaba 3GR**

Switch

Trim

**Sanwa Exzes PLUS**

Switch

Button

Trim

**Sanwa Gemini**

Switch

Trim