

DSM basic Night Vapor and other 3 channel DSM models

1. 3 Channel (Elevator, Throttle, Rudder) *plus* a channel for stabilization mode
2. By convention the Aileron stick is set to control the Rudder for a 3 channel model. So that the primary “turning” stick, is consistent across 3 and 4 channel models.
3. Stabilizer - none
4. **If** you use “Companion” on your computer, then set **your** radio type in Companion with Settings-> Radio profiles.

IMPORTANT

1. The choice of switches and pots/sliders shown below, suits my radio and my style. *You need to allocate switches etc, to suit your radio and your style. BUT, this does **NOT** affect the basic model set up, nor affect output channel allocation on the pictures that follow.* For example, choose a 2 position switch for Thr cut and a 3 position switch for the 3 stabilization options.
2. My radio is RadioMaster Zorro, Mode 2, again this does not alter basic model set up.

Radio channel allocation (MUST be “AETR” for any multiprotocol transmitter)

Channel Num	Order	Use
1	A	Aileron – no output
2	E	Elevator
3	T	Throttle
4	R	Rudder (allocated Aileron input in radio)

Note – The multiprotocol module automatically rearranges the transmitter output order, to suit the receiver protocol selected.

Protocol – settings. See “1- Setup” next page.

Setting	Value
For an Internal Protocol Module	Internal Radio System
For an External Protocol Module	External Radio System
Protocol	Multi
Multi Radio Protocol	DSM
Sub Type	DSM2 1F (or other variants)

Cont'd over

1 - Setup – SET THIS FIRST

The screenshot shows the 'Model' setup screen for a DSM2 Basic transmitter. The 'Internal Radio System' section is highlighted with red arrows pointing to the following settings: Protocol (Multi), Start (CH 1), Multi Radio Protocol (DSM), Sub Type (DSM2 1F), Receiver No. (21), Low Power (checked), and Enable Max Throw (checked). In the 'Warnings' section, the 'Switch Warnings' for SE is checked. In the 'Throttle Source' section, 'Throttle Warning' is checked. The 'Timer' section shows three timers set to 00:00:00 with 'Countdown' and 'Silent' options. The 'Trim Step' is set to 'Medium' and 'Global Functions' is checked. The 'Center beep' section has 'Ele', 'Thr', and 'S1' checked. The 'ADC filter' is set to 'Global'.

Notes:

Set Internal Radio System **OR** External Radio System as above.

Important:

1. Set the protocol sections as shown.
2. Set the Receiver Number to a UNIQUE number for each receiver that you use.
3. For the DSM planes that auto bind, they bind better when “Low Power” is selected as shown above. For indoor flying this should stay in this mode to lessen interference with the other close by radios & planes. *Once bound, untick this if flying this model outdoors.*
4. Enable Max Throw – **VERY IMPORTANT for DSM receivers!!**

Throttle Warning

Set this so you are warned if the throttle is not all the way down before the transmitter is activated.

Switch Warning (above picture)

To ensure that the Thr Cut (Sw E) is active, the radio checks the position prior to activating the radio. If the switch is not set appropriately, you get a warning on the radio screen and cannot proceed until the error condition is corrected i.e. until you set the switches to expected position. See **IMPORTANT** note re switch allocation at the start of this document.

Cont'd over

2 - Inputs – BEST IF ORDER IS “AETR” for page consistency.

I1:Ail	Ail Weight(+100%) Expo(30%) Switch(SF↑) [Hi Rat]
	Ail Weight(+70%) Expo(30%) Switch(SF↓) [Lo Rat]
I2:Ele	Ele Weight(+100%) Expo(30%) Switch(SF↑) [Hi Rat]
	Ele Weight(+70%) Expo(30%) Switch(SF↓) [Lo Rat]
I3:Thr	Thr Weight(+100%)

See **IMPORTANT** note re switch allocation at the start of this document.

See appendix 1.

Set this next.

3 - Outputs – ORDER MUST BE ‘AETR’.

The multiprotocol unit will rearrange the order to suit the particular protocol/receiver selected.

#	Name	Subtrim	Min	Max	Direction
CH1		<input type="checkbox"/> GV 0.0%	<input type="checkbox"/> GV -100.0%	<input type="checkbox"/> GV 100.0%	---
CH2	EIO	<input type="checkbox"/> GV 0.0%	<input type="checkbox"/> GV -100.0%	<input type="checkbox"/> GV 100.0%	---
CH3	ThO	<input type="checkbox"/> GV 0.0%	<input type="checkbox"/> GV -100.0%	<input type="checkbox"/> GV 100.0%	---
CH4	RuO	<input type="checkbox"/> GV 0.0%	<input type="checkbox"/> GV -100.0%	<input type="checkbox"/> GV 100.0%	---

Notes:

1. CH1 is left blank as this is a 3 channel model without Ailerons.
2. “EIO” is “Elevator Output” & the rest of the labels follow suit.
3. If any output goes the wrong way, e.g. elevator moves the wrong direction when you move the elevator stick, then change the **direction** on this screen.

Now set this

4 - Mixes

CH1	
CH2:EIO	I2:Ele Weight(+100%)
CH3:ThO	I3:Thr Weight(+100%) := MAX Weight(-100%) Switch(SE↑) [Cut]
CH4:RuO	I1:Ail Weight(+100%)

See appendix 2.

Notes:

1. CH1 is left blank as there are no Ailerons on this model.
2. “:=MAX Wt (-100%) Sw (SE^) [Cut]” - this is a simple Thr cut switch set up. It is added as an extra line immediately below CH3 Throttle. This is *not essential* but is a VERY desirable safety feature. See **IMPORTANT** note re switch allocation at the start of this document. See appendix 2 for detail.
3. “[Cut]” is the line name and is *not essential* but makes for easier reading.
4. CH4 Rudder uses the Aileron INPUT.

5 - Logical Switches :: Not used

6 - Special functions :: Not Used

See appendix 2.

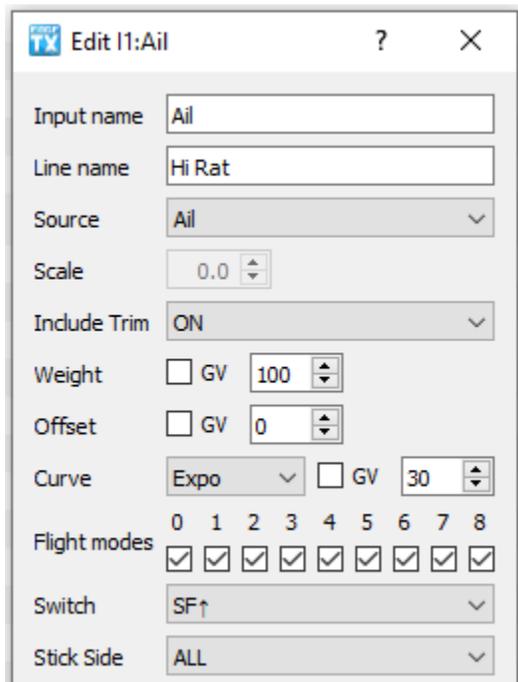
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3. “[Cut]” is the line name and is *not essential* but makes for easier reading.
4. CH4 Rudder uses the Aileron INPUT.

5 - Logical Switches - Not used

6 - Special functions - Not Used

Appendix 1 – Sample aileron **INPUT** set up as used above.

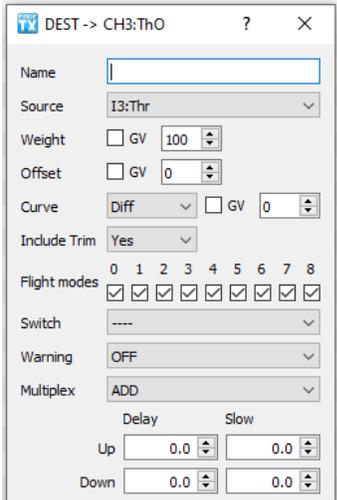


The screenshot shows a window titled "Edit I1:Ail" with the following configuration options:

- Input name: Ail
- Line name: Hi Rat
- Source: Ail
- Scale: 0.0
- Include Trim: ON
- Weight: GV 100
- Offset: GV 0
- Curve: Expo GV 30
- Flight modes: 0 1 2 3 4 5 6 7 8 (all checked)
- Switch: SF↑
- Stick Side: ALL

Cont'd over.

Appendix 2 – sample throttle and throttle cut MIX set ups used above.



Make sure to set all 4 items marked below with red arrows. The blue one is optional.

