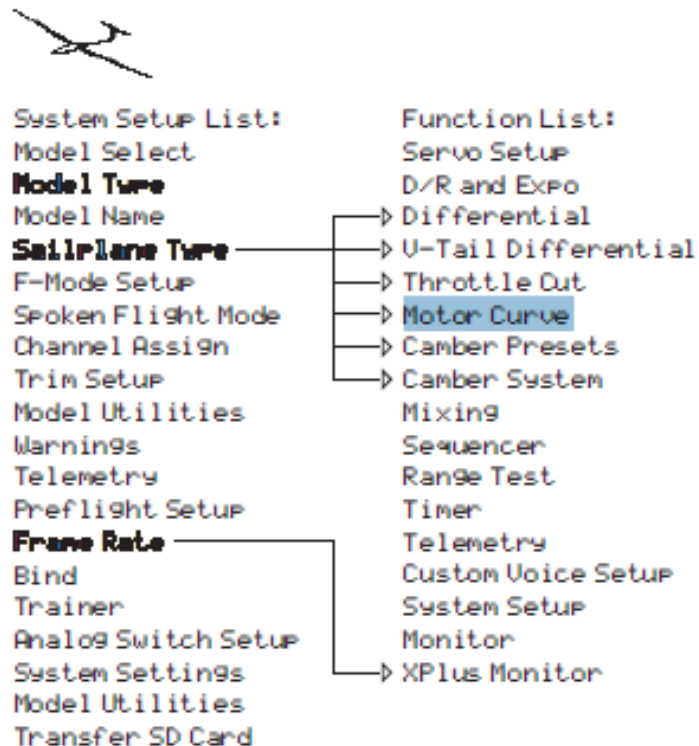




How to Program the Throttle Function
on a DX18 for F5J Competition

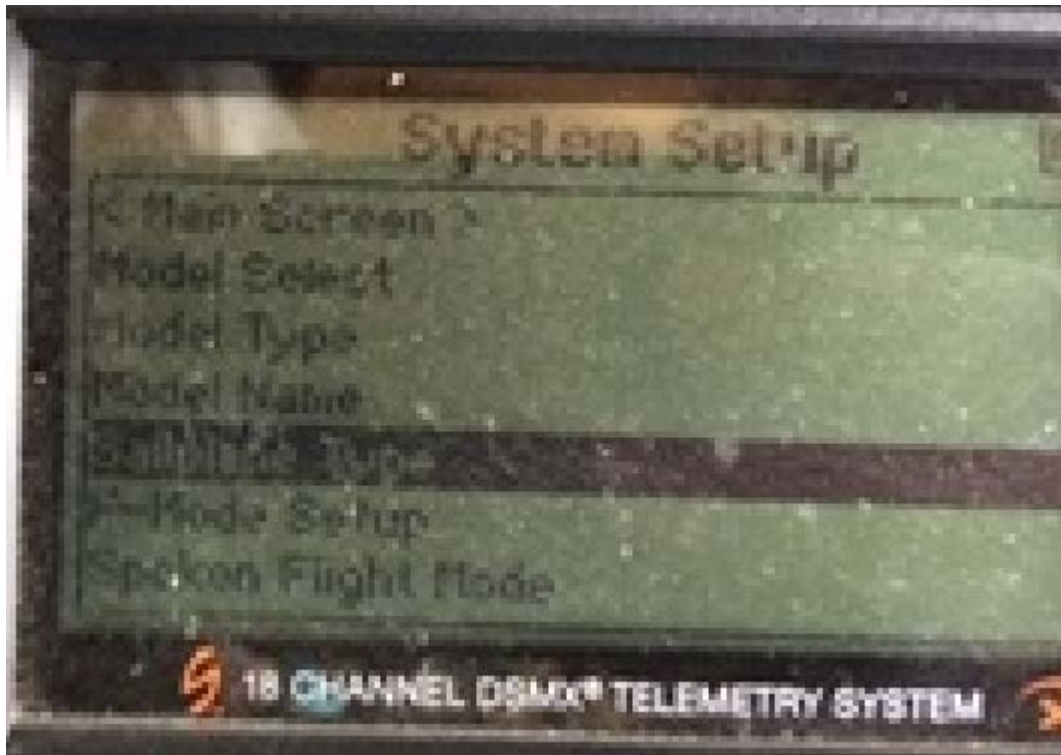
- ❖ You will Learn how to:
 - Set up an Arming Switch for launching
 - Set up a Motor Curve for low, mid, and high end throttle settings
- ❖ This series of steps was the result of conversations with Mike Smith, Tim Johnson, Chris Bajorek, and Fred Weaver
- ❖ Its nice to have an active community who enjoy helping others learn and progress through competition and friendship



- **Do not use the F5J limiter or CAM ALES during this set up**
- **Remove the Propeller Blades, Spinner with Propeller Blades before you do anything!**
- **This Setup up will require several operations to happen all of which could arm the speed control and will cause serious personal injury with the propeller installed**

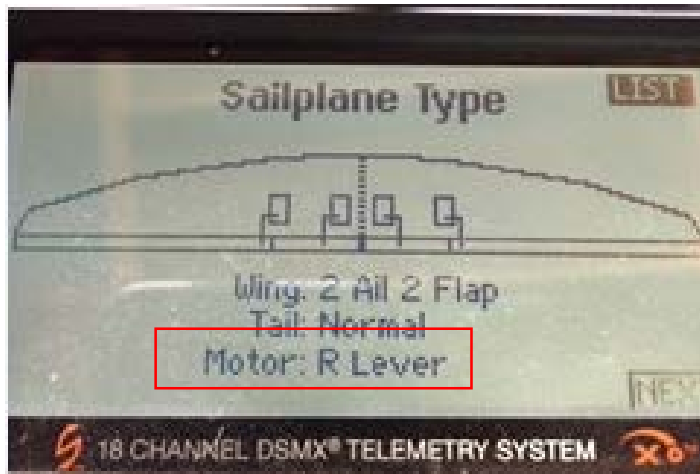
F5J Throttle Set Up – Sailplane type in the main menu

Sailplane Type (this is where you find the Wing type and Motor setup)



F5J Throttle Set Up using Sailplane type for Right Slider

Motor Switch (Right lever) This is the Lever will control throttle (example only)



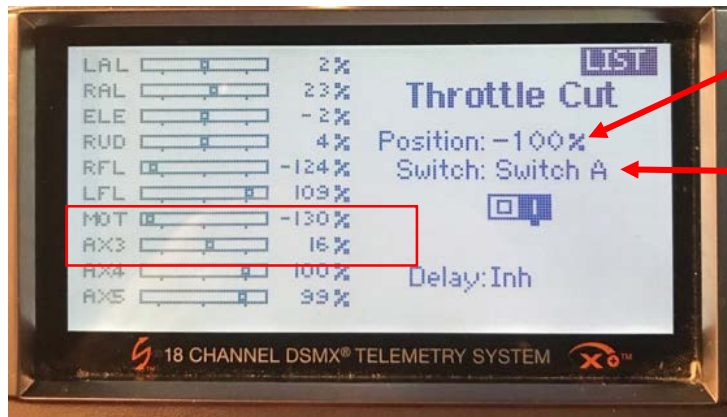
F5J Throttle Set Up using Motor Cut

Motor Cut

- Motor cut curve default is -130%
- Adjust to be -100%



Motor Curve (Default -130%)

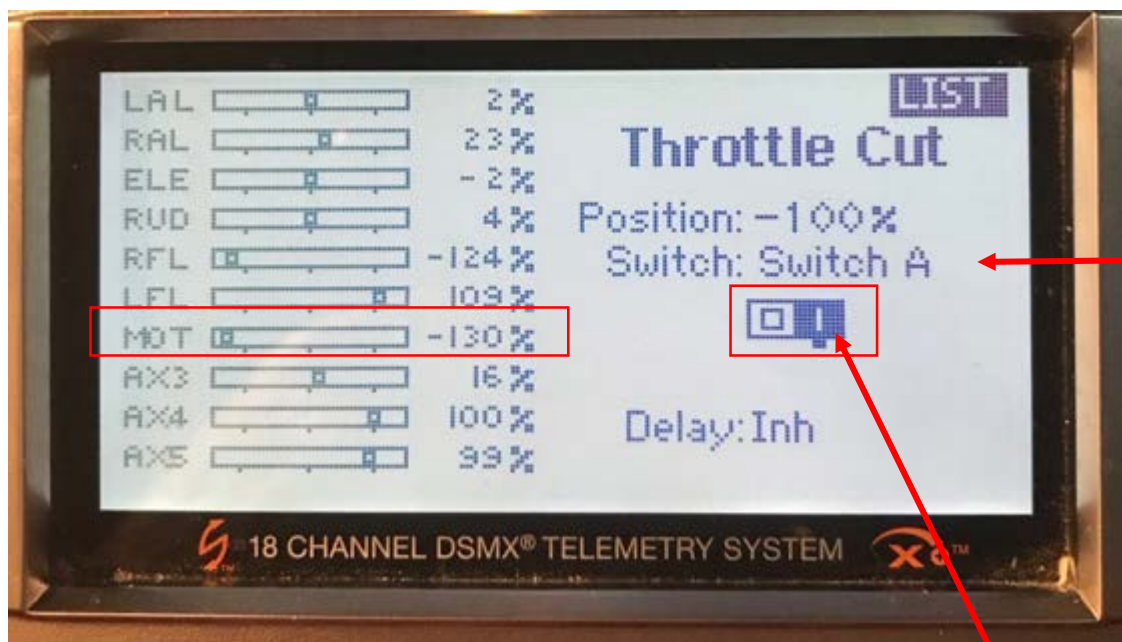


Switch A (You must select this)

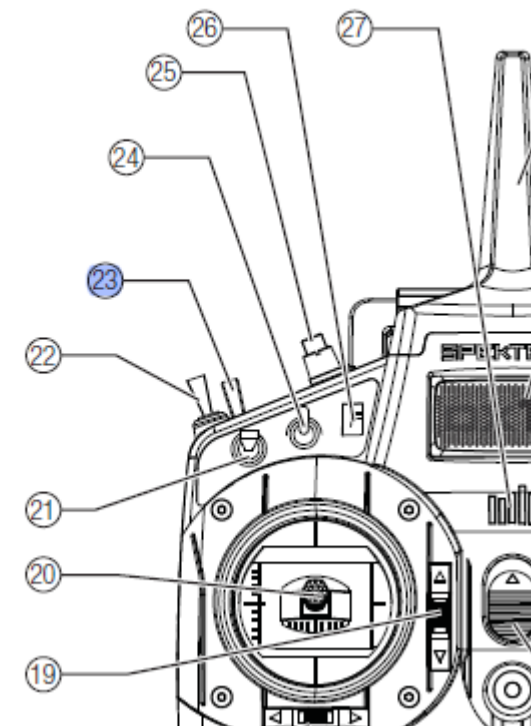
F5J Throttle Set Up Switch A Motor On and Off

Switch A (Two position) Motor on (Launch Mode) , Motor off (Cruise Mode)

- This is the switch that puts the Sailplane into launch mode.
- Note: When Switch A is left in Motor On (Launch Mode) position it will override all other flight modes



Function	
⑰	Elevator Trim (Mode 1,3) Throttle Trim (Mode 2,4)
⑳	Elevator/Rudder Stick (Mode 1)
	Throttle/Rudder Stick (Mode 2)
	Elevator/Aileron Stick (Mode 3)
	Throttle/Aileron Stick (Mode 4)
㉑	Switch C
㉒	Switch B
㉓	Switch A
㉔	Switch D
㉕	Bind/Switch I



Turn this switch ON by rolling over it and depressing the roller switch

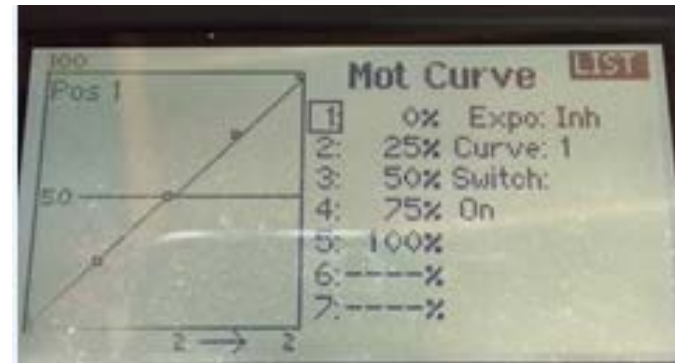
F5J Throttle Set Up using Motor Curve

Motor Curve Defaults

- Motor cut curve default is -130%
- Adjust to be -100%



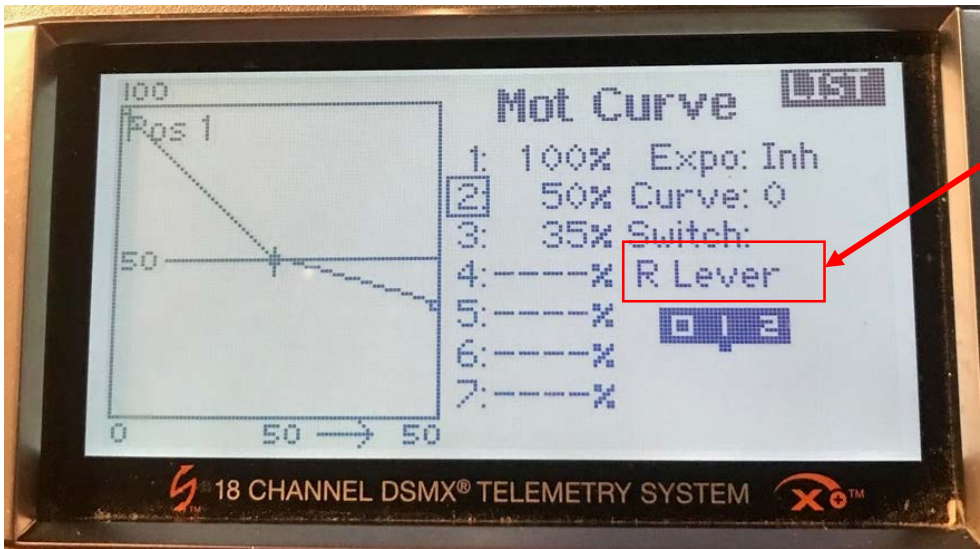
Motor Curve (Default Settings)



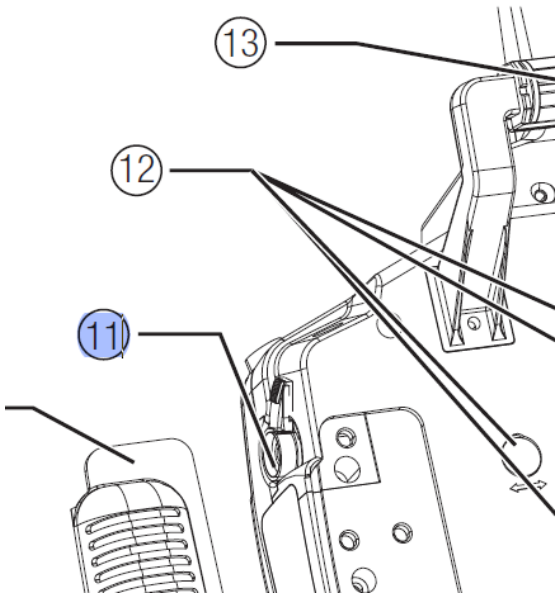
F5J Throttle Set Up using Motor Curve for Right Slider

Motor Curve (Right lever) Motor set curve **Pos 1** 100%, **Pos 2** 50%, and **Pos 3** 35%

This is the Lever that puts a Sailplane into launch power at 35% when the Switch A is enabled for Launch Mode.



Function	
⑩	Right Rear Grip
⑪	Right Lever
⑫	Gimbal Stick Tension Adjustment
⑬	Handle/Antenna 2



F5J Throttle Set Up Flight mode Setup for Priority Switch

Flight Mode Priority typically defaults to Thr Stick



- When you use an existing 6 servos sailplane setup the program will have the switch assignments as shown.
- What has to be done is to move them around as shown on Slide 11.

F5J Throttle Set Up Flight mode Setup for Switch A

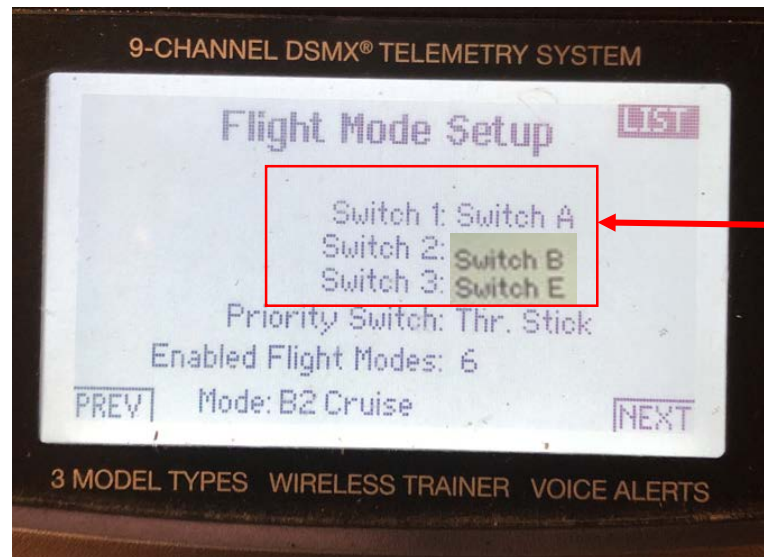
Flight Mode Setup

Switch 1: Switch A Arming of the Motor needs to set first

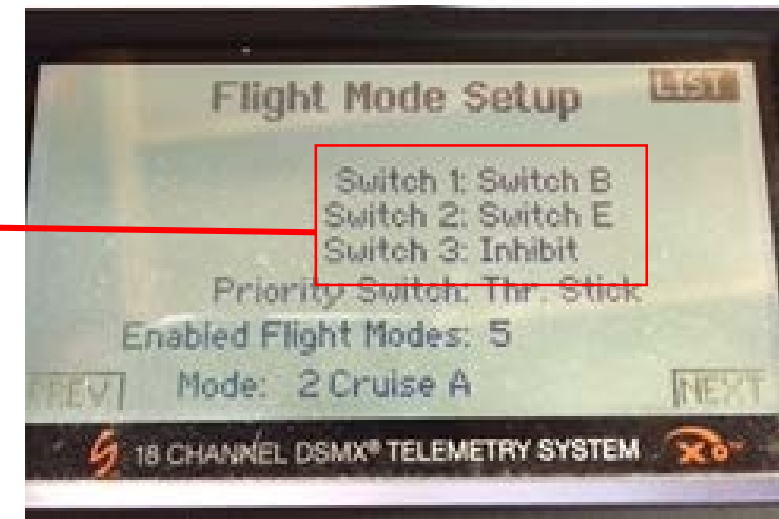
Switch 2: Switch B is the 3 position Switch used for Thermal flying (F3J) Launch, Cruise, and Landing
Switch B will now be Cruise, Cruise, and Landing for Electric (F5J / ALES) Sailplanes

Switch 3: Switch E is the 3 position Switch used for Thermal flying Launch, Cruise, and Speed

Priority Switch: Throttle is still the same function

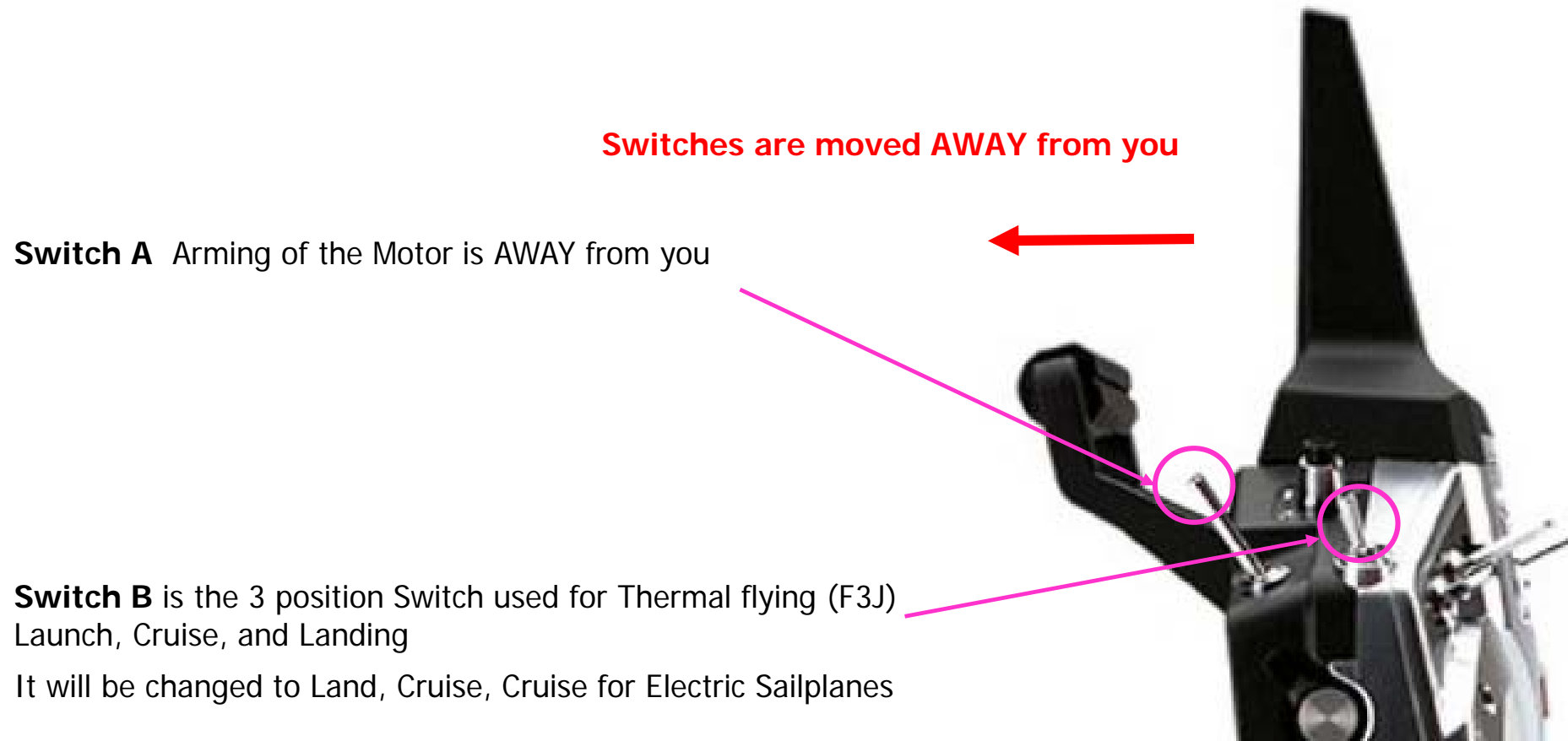


Flight Mode for Electric Sailplane



This is the before condition

F5J Throttle Set Up Flight Mode Table Setup for Switch A and B



Side View of the DX18

F5J Throttle Set Up Flight Mode Table Setup for Switch E and Right Slider

Switch is moved Down for Thermal
Switch is moved Middle for Cruise
Switch is moved UP for Speed

Switch E is the 3 position Switch used for Thermal flying (F3J)
Thermal, Cruise, and Speed

Right Slider

Used for the 35%, 50%, and 100% Throttle Curve setting

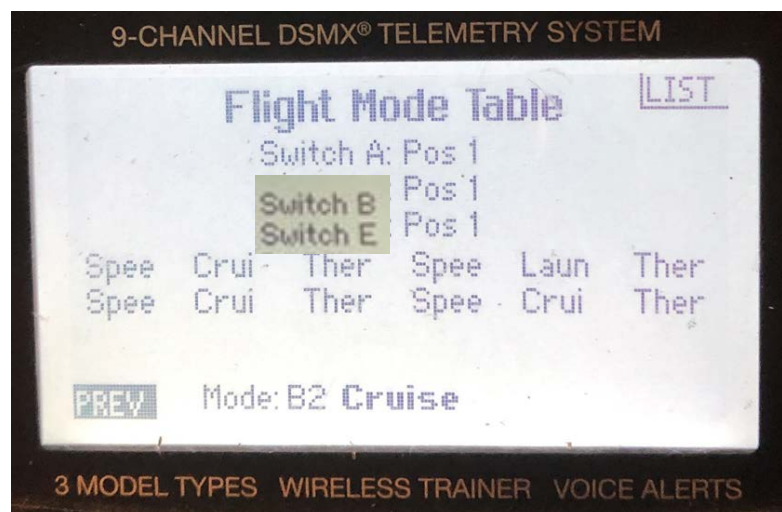


Side View of the DX18

F5J Throttle Set Up Flight mode – Flight Mode Table Menu

Flight Mode Table

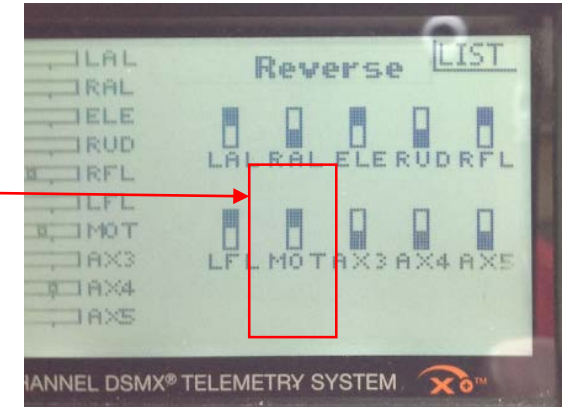
- In this screen you will be verifying that all of the switches (Switch A, B, and E) are the correct function when enabled (see Slide 12 and 13)
- Enter the menu screen
 - Activate Switch A:** **Toward** you should be **Cruise (Motor OFF)**
Away should be **Launch (Motor ON going to the lowest setting on the Throttle Curve)**
 - Activate Switch B:** **Toward** you is Cruise; Middle is Cruise; Away is Landing Mode (Manually set by the pilot) otherwise it is active by the Throttle stick
 - Activate Switch E:** **Down** is Thermal Mode; **Middle** is Cruise Mode; **Top** is Speed Mode
- **Make sure the propeller is not installed**
- After all of this is complete turn the Transmitter ON and plug in the Power Battery to the Speed controller to see if it Arms
- If the Speed Controller makes the sounds as if it Arms then Activate Switch A
- If the Motor does not operate go to Slide 15



F5J Throttle Set Up Flight mode – Reverse Switch Menu

Reverse Servo

- Unplug the Power battery from the Electric motor
- Reverse the Motor Switch in the Reverse Servo menu
- Doing this will cause a menu warning that tells you to rebind the receiver to the low power setting.
- Say yes to this
- Turn the Transmitter OFF and prepare to bind the Receiver using a 4.8 Volt battery to power the receiver for binding
- When the binding is complete remove the 4.8 Volt battery to power the receiver for binding and the bind plug
- Turn the Transmitter ON
- Connect the Power Battery to the Speed controller to see if it Arms
- If the Speed Controller makes the sounds as if it Arms then Activate Switch A
- The electric motor will now operate; verify the speed is at 35%
- If not return to Slide 9 and reverse the order of the Throttle Curve values



F5J Throttle Set Up Flight mode – Install the propeller / verify rotation

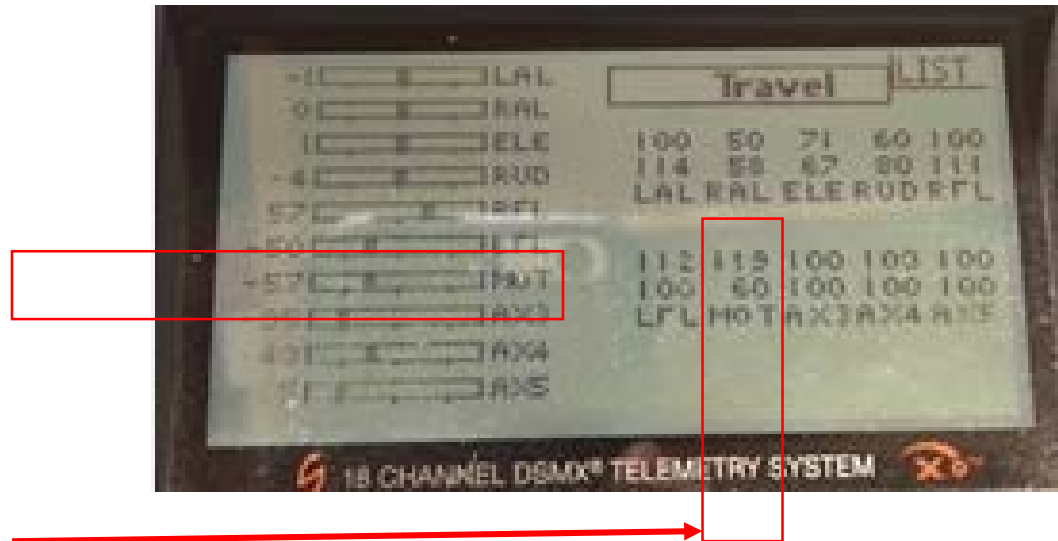
Flight Testing

- **Now that the basic functions have been activated it is time to re-install the propeller blades per the manufactures instructions**
- **Verify the propeller rotates the correct direction and has enough power to allow the Sailplane to fly**
- Adjust the low power settings on the Motor Curve after flight testing to allow the Sailplane to maintain level flight
- Adjust the high power settings on the Motor Curve after flight testing to allow the Sailplane to fly at maximum speed

F5J Throttle Set Up Travel Adjust for Motor

Motor Travel

The limits will be different for each Speed controller. Set to arm the Speed control



Motor travel