

# Final Adjustments - Radio Setup

Now that the servo installation into the helicopter is finished the following pages should be reviewed. As various types of radios can be used to setup the helicopter, some of the following information may not apply.

## Servo Direction (Servo Reversing)

Check that all servos move in the correct directions, see the diagram on pg 36.

## Dual Rates

For beginners ( using the flybar weights ) the dual rate values should be set at 100% for both switch positions until hovering has been mastered.

Position #1: (high rate) 100%

Position #2: (low rate) 75%

## Exponential

The exponential function allows you to adjust the sensitive of the cyclic controls around the center of the stick position. This should be left at 0% (linear) until all trimming is complete.

## Trims

The trims on the outside of your transmitter are used to fine tune the servo center positions while testing in-flight. If the trim has to be moved more than 5 or 6 divisions then mechanically readjust the linkage length to set the trim back in the center.

## Throttle Mixing

If your radio has some mixing facilities, it is recommended that you use them to mix throttle with some other controls for aerobatic and 3D flying. Set the mixes so that they add throttle when using fore-aft cyclic (elevator), left-right cyclic (aileron) and tail rotor (rudder).

## Travel Adjustment ( endpoints )

Use endpoint adjustments to adjust how far the servo is allowed to move in either direction. Try to always keep the same amounts on each side of center. If binding occurs simply reduce the travel in that direction or use a smaller servo arm . \*\* Note: by changing one side only (high or low stick) the servo travel is no longer equal which may result in an improper control response. It is better to set the high/low adjustments the same, or make actual pushrod adjustments.

## Pitch & Throttle Curve Adjustments

We adjust these curves in order to achieve a constant rotor speed at all collective pitch settings. This will reduce the amount tail rotor compensation during flight and aerobatics and keep the engine always at its optimum power RPM. This can only be achieved through adjusting the individual values which control the pitch and throttle at a given stick position until a constant rotor speed is achieved.

## Pitch Curve Adjustment

The following chart shows the values for the collective pitch measured in degrees which are made on the helicopter using a pitch gauge. The Travel Adjustment function (if available makes these settings easy).

For the beginner it is recommended to set the low stick position to 0 degrees to avoid damaging the helicopter while reducing the power during the first few flights.

These settings will need slight adjustment to keep the helicopter at a consistent height at mid stick.

## Suggested Pitch Curve Values

Flight Mode	Setup Method	Low Pitch (low stick)	Hovering (mid stick)	High Pitch (high stick)
N	Beginner	0	5	9
N	Hovering	-2	5	9
1	Stunt & Aerobatics	-5	5	9
2	3D**	-9	0	9
H	Autorotation	-5	5	12

( N - Normal flight mode, 1 - Stunt mode one, 2 - Stunt mode two, H - Throttle hold-autorotation )

Note\*\* In order to avoid binding at high pitch angles the flybar control arms may need to be reset at an angle of 10-15 degrees down from parallel.