Heli-Max™

INTRODUCTION

Thank you for purchasing the Heli-Max AXE™ 400 3D Rx-R Helicopter. We are certain you will get many hours of enjoyment out of this model. If you should have any questions or concerns, please feel free to contact us at:

helihotline@hobbico.com.

For the latest technical updates or manual corrections to the AXE 400 3D Rx-R, visit the Heli-Max web site at **www.helimax-rc.com**. Open the "Helicopters" link, and then select the 400 3D Rx-R. If there is new technical information or changes to this model, a "tech notice" box will appear in the upper left corner of the page.

ITEMS THAT MUST BE PURCHASED SEPARATELY

RADIO SYSTEM

Minimum 6-Channel Helicopter Radio
- FUTK6900 Futaba® 6EX 6-Channel 2.4GHz Transmitter/ Receiver
- FUTK7005 Futaba 7C 7-Channel 2.4GHz Heli Tx/Rx No Servos
- FUTK9251 Futaba 10C 10-Channel 2.4GHz Heli Tx/Rx Mode 2

FLIGHT BATTERY

Hovering, Basic Aerobatics and 3D
- GPMP0406 11.1V 2000mAh Battery LiPo Flight Battery
- GPMP0617 Great Planes® ElectriFly™ LiPo 11.1V 2200mAh 25C Power Series

Hovering, Basic Aerobatics, Mild 3D and Aggressive 3D
- GPMP0520 Great Planes LiPo 11.1V 2200mAh 25C T-Rex MX450 Heli
- FPWP0327 FlightPower LiPo 11.1V 2170mAh 25C EVO25 3S Balance

Also required is an appropriate battery charger for your flight battery.

WARNING: To prevent the possibility of the main rotors turning during set up, you must disconnect the main drive motor from the ESC or remove the pinion gear from the motor. Failure to do this may result in injury to yourself or damage to the model and its surroundings.

OPERATIONAL WARNINGS

CAUTION! A separate Battery Eliminator Circuit (BEC) must be used If you decide to change the stock servos (Futaba S3114) to some other type of analog or digital servos. We highly recommend the Castle Creations CC BEC 10A Switching Regulator (CSEM0005).

DANGER! Please allow a 10 minute cool down period after each flight for the Electronic Speed Control (ESC). Failure to do so may cause loss of control due to the ESC overheating and shutting down.

DANGER! Please inspect the wooden main rotor blades before each flight for damage. If any damage is found or if the blades have been crashed, please replace the blades before flying the model again.

CAUTION! If the rotor head speed ever drops suddenly in flight, please land the model immediately and remove the body. Inspect the battery temperature and ensure that it has not exceeded 140°F. Also ensure that the ESC has not overheated. The ESC does have a thermal protection built in that will reduce the power output to safe levels when the safe operating temperatures have been exceeded. If this has occurred, please allow the model 10 minutes to cool down.

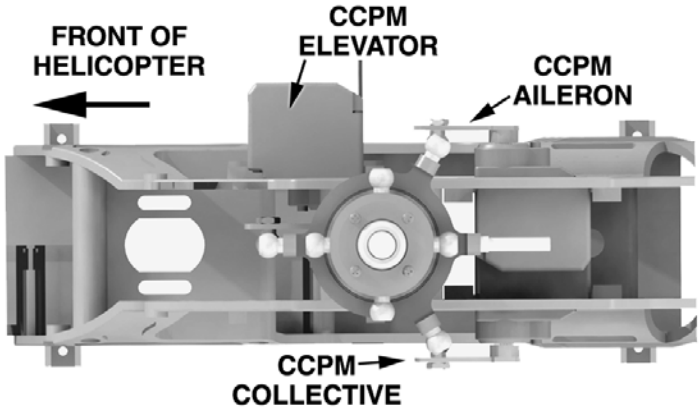
WARNING! The ESC does have a soft cut function that will reduce the power output to protect the flight battery. Toward the end of a flight, if you notice a slight power reduction, land the model immediately and re-charge the battery. The flight time of the Axe 400 can be as long as 10 minutes, but this will vary depending on your flying style or how aggressively you fly the model.

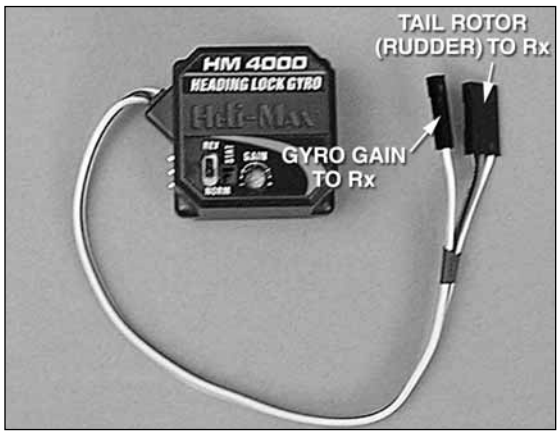
CAUTION! After a crash you must inspect all plastic and metal parts on the helicopter for damage before flying the model again.

RECEIVER SERVO CONNECTIONS

Receiver Type	CCPM Aileron	CCPM Elevator	Tail Rotor	Gyro Gain	CCPM Collective	Throttle
Futaba PCM1024 / FM	1	2	4	5	6	3
Futaba 6/7CH FASST	1	2	4	5	6	3
Futaba FASST Multi	1	2	4	5	3	6
Hitec	1	2	4	5	6	3
JR	2	3	4	5	6	1
Airtronics	2	1	4	5	6	3
Multiplex	1	2	3	6	4	5

Using the table above, plug the Servos, Electronic Speed Control (ESC) and Gyro into the appropriate channels on the receiver. Please refer to your manufacturer's instructions for your transmitter to verify that these connections are correct.





SET UP QUICK REFERENCE

Please use this table as a reference while setting up the Axe 400 Rx-R. Please refer to your manufacturer's transmitter instructions to ensure that the model is set up correctly. Once the model is set up, verify that the controls operate as described in the Heli-Max Axe 400 RTF manual.

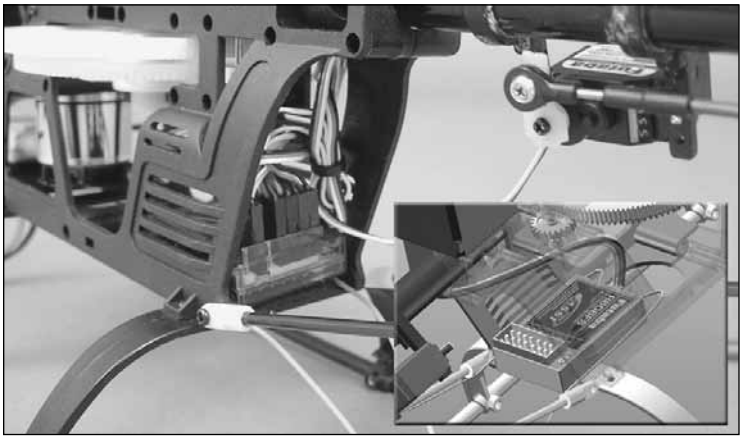
Swashplate Type	Futaba 6EX	Futaba 7C	Futaba 9C	Futaba 10D	Futaba 12 / 14
120° CCPM	3-S	HR-3	HR-3	HR-3	HR-3

	CCPM All Servo	**CCPM Elev Servo**	**Throttle**	**Tail Rotor**	**Gyro**	**CCPM COL**
Swash AFR	Aileron +85%	Elevator -85%				COL +35%
EPA / ATV	100% / 100%	100% / 100%	100% / 100%	70% / 70%	100% / 100%	100% / 100%
D/R	100% H – 70% L	100% H – 70% L		100% H – 70% L		
EXP	-50% H – 35% L	-50% H – 35% L		-50% H – 35% L		
Reverse (Futaba Only)	1 – Reverse	2 – Normal	3 – Reverse	4 – Normal	5 – Normal	6 – Normal
Sub Trim	0	0	0	0	0	0
Trim Step*	4* -- 1	4* -- 1	4	4* -- 1		
Fail Safe			Low Throttle			
GYRO	Heading Hold					
(Heading Hold)	45% Gain					
HOV-THR	INH - Best to use mechanical adjustments					
HOV-PIT	INH - Best to use mechanical adjustments					
Throttle Hold	ACT	POS>+- 0%	R-OF> INH	RT>+- 0%		
Throttle Curve						
Normal	0%	32%	65%	82%	100%	
Idle Up 1	100%	92%	85%	92%	100%	
Pitch Curve						
Normal	45% / -2°	47%	50% / 0°	75%	100% / +10°	
Hold	30% / -4°	40%	50% / 0°	75%	100% / +10°	
Idle Up 1	0% / -10°	25%	50% / 0°	75%	100% / +10°	
Swash-> Throttle Mixing	Idle Up Only	Left/Right Cyclic 20%	Forward/Aft Cyclic 20%			

*Leave the trim step set to 4 until the initial trim flight is completed. Then you can reduce the trim step to 1 for a finer adjustment.

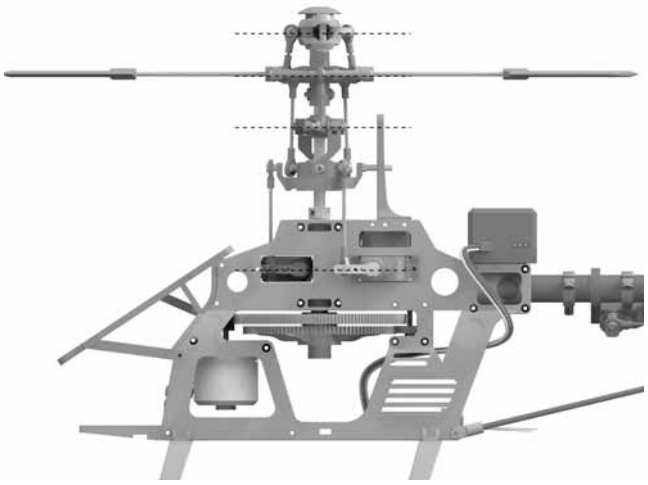
FINAL SET UP

Mount the receiver using double sided tape as shown below. Using a wire tie, bundle the wires and place them on top of the receiver. This ensures that the wires cannot become entangled in the main rotor gear or the counter gear that drives the tail rotor.



Disconnect the main drive motor from the ESC. Turn your transmitter on. Install a flight battery into the helicopter and connect the battery to the ESC. Allow the gyro 5 seconds to initialize.

Verify that you have disconnected the drive motor. Carefully raise the throttle stick to the middle position. The servos, blade grips and all the mixing levers should be perfectly level. If necessary please make adjustments to the servo arms, linkages or to the radio set up. Linkage lengths are listed in the Heli-Max Axe 400 RTF manual.

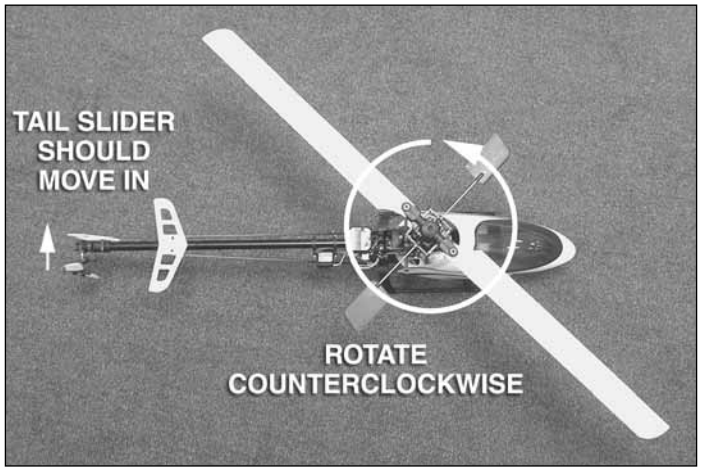


PITCH RANGE

Pitch Curve	Low End	Mid Stick	High End
Normal	-2°	0°	+10°
Hold	-4°	0°	+10°
Idle Up 1	-10°	0°	+10°

Using a pitch gauge please verify the settings shown below.

GYRO SET UP



With the transmitter on and the flight battery connected, pick the helicopter up by the main rotor head and rotate the nose to the left (counterclockwise). Verify that the pitch slider on the tail rotor moves in toward the tail gear box, applying right tail rotor as the correction.

You may notice that the tail servo does not center when the transmitter stick is returned to center. This is correct and how a heading hold gyro operates. If the tail rotor servo always returns to center, then you need to reverse the gyro gain channel in the transmitter.

BEFORE FLYING THE MODEL

Once you have verified the settings, please refer to the Axe 400 Ready To Fly manual for final set up and flying instructions.

Thanks you for purchasing the Heli-Max Axe 400 Rx-R and Happy Flying!