

Version No: 20150423

0 **Product Specifications** Length: 690mm Height: 200mm Width: 95mm Main Blade Length: 360mm Tail Blade Length: 58-62mm Thank you for buying Chase products. Please read this manual Motor Pinion: 18T/19T carefully before assembling. We recommend that you keep this Servo: KDS N300S/T manual for future reference regarding tuning and maintenance. Motor KV: 1900KV

SAFETY PRECAUTIONS

This radio controlled helicopter is NOT A TOY! It has some technical requirements, you must pay attention to the flying environment and correct operation. Never fly your radio controlled helicopter over people or near crowds. Teenagers must fly under the guardian's guide. Beginners must fly under the guardian of experienced pilot.

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Driving Gear: (18/50)(18/80)

Battery: 22.2V 1300-1500mAh

Gear Ratio: 18T(12.34:1)

Tail Gear Ratio: 4.73:1

Flying Weight: 1100g

ESC: 50A 6S

СНЛ5Е360

1.INTRODUCTION

Congratulations on your purchase of the Chase 360 radio controlled helicopter kit. Chase 360 was designed in Europe by Australia by Glen Kimpton and is proudly manufactured by KDS Model. Our goal was to offer you something different with a minimum of parts, easy maintenance, and outstanding flying performances. It's time to fly different!...



Enjoy the built and have a great time with you Chase 360!

IMPORTANT NOTES

R/C helicopters, including the Chase 360 are not toys. R/C helicopters utilize various high-tech products and technologies to provide superior performance. Improper use of this product can result in serious injury or even death. Please read this manual carefully before using and make sure to be conscious of your own personal safety and the safety of others and your environment when operating all CHASE products. Chase 360, KDS Model, their affiliates and authorized distributors are not responsible for personal injuries to the operators and others, and property damages that could occur from the assembly, maintenance or your use/misuse of this product. Always respect the rules provided by your local remote control aircraft organization.

NOTE FOR ASSEMBLY

The following manual provide important instructions to correctly assemble the model. It is structured in a logical way, based on the work done in previous step. If you change the order, it may result in additional or unnecessary steps. So we suggest you to read this user manual very carefully to understand correctly the assembly procedure. Failure to do so may not only downgrade performances but also increase the risk of danger. Apply thread lock as indicated, allow the threadlock to cure before mounting parts. It is recommended to use threadlock on each bolt or screw that are engaged with metal parts.

2.SAFETY NOTES

• LOCATE AN APPROPRIATE LOCATION

R/C helicopters fly at high speed, thus posing a certain degree of potential danger. Choose an appropriate flying site consisting of flat, smooth ground, a clear open field, or a large open room, such as gymnasium or warehouse without obstacles. Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others and your model. Do not play your model in inclement weather, such as rain, wind, snow or darkness.

• OBTAIN THE ASSISTANCE OF AN EXPERIENCED PILOT

Before turning on your model and transmitter, check to make sure no one else is operating on the same frequency. Frequency interference can cause your model, or other models to crash. The guidance provided by an experienced pilot will be invaluable for the assembly, tuning, trimming, and actual first flight(recommend you to practice with computer-based flight simulator).

• ALWAYS BE AWARE OF THE ROTATING BLADES

During the operation of the helicopter, the main rotor will be spinning at a high rate of speed. The blades are capable of inflicting serious bodily injury and damage the environment. Be conscious of your actions, and careful to keep your face, eyes, hands, and loose clothing away from the blades. Always fly the model a safe distance from yourself and others, as well as surrounding objects. Never take your eyes off the model or leave it unattended while it is turned on. Immediately turn off the model and transmitter when you have landed the model.









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• PREVENT MOISTURE

R/C models are composed of many precision electrical components. It is critical to keep the model and associated equipment away from moisture and other contaminants. The introduction or exposure to water or moisture in any form can cause the model to malfunction resulting in loss of use, or a crash. Do not operate or expose to rain or moisture.

• KEEP AWAY FROM HEAT

R/C models are made up of various forms of plastic. Plastic is very susceptible to damage or deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven, or heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

• PROPER OPERATION

Please use the replacement of parts on the manual to ensure the safety of instructors. This product is for R/C model, so do not use for other purpose.

• SAFE OPERATION

Operate this unit within your ability. Do not fly under tired condition or improper operation, which may cause danger.

3.Safety Check Before Flying

Before flying, for safety reasons, make sure that no one else is operating a R/C model on the same frequency as yours.

Before flying, please check that the power of your transmitter and your helicopter are sufficient for the flight.

Before turning on the transmitter, please check that the throttle stick is in its lowest position, IDLE UP switch must be on OFF position.

When turning off the model, please follow the power on/off procedure. Power ON: turn on the transmitter first, then turn on

helicopter power. Power OFF: turn off the helicopter power first and then turn off the transmitter. Improper operating procedure

may cause the model to be out of control, so please do make this your habit.

Before operation, check that every movement is smooth and directions are correct. Inspect servos carefully for interferences and broken gears.

Check for missing or loose screws and nuts. See if there is any cracked and/or incomplete assembly of parts.

Check main rotor blades and rotor holders carefully. Broken and premature failures of parts might result in a dangerous situation or crash.

Check all ball links to avoid excess play and replace as needed. Failure to do so will result in poor flight stability.

Check that the battery and power plugs are fastened. Vibrations and violent flight might loosen the plugs and so lead to out of control. Check for the tension of main drive belt.

4. Tools Required

-Hex drivers : 1.5, 2, 2.5, 3, 4mm	-Swashplate leveller
-Nut Drivers : 2, 4, 7mm	-Threadlock blue * (medium)
-Ball link pliers	-Threadlock red * (high strength)
-Diagonal cutting pliers	-Bearing retainer compound
-Scissors	-Epoxy A+B Glue
-Metric ruler	-Grease
-Soldering iron + solder (for motor and ESC wiring)	-Oil
-Pitch gauge (for set up)	*Colors may vary depending on your area.











When you see the marks as below, please use glue or grease to ensure flying safety.

Ероху	Threadlock (medium)	Bearing retainer compound	Threadlock (High strength)	Oi
BOXY A	A	B	1 C	

2mm "A" Glue width: approx. 2mm

"OIL" Lubrication grease. "A" thread lock, apply a small amount on screws or metal parts and wipe surplus off. When disassembling, recommend to heat the metal joint about 15 seconds. (NOTE: Keep plastic parts away from heat.)

5.Equipment Required for Assembly

•Brushless electric motor: 6s Lipo - 1900KV	
(3mm Bolt holes, 25mm mount width, 4mm * 57.5mm motor shaft)	
•Speed controller: minimum 50A	
(ESC specs limits should be rated accordingly to the maximum amps handling by the motor)	
• Lipo Batteries: 6S 1200-1500 mAh	
•Electronic flybarless system	
•3 cyclic servos, standard size	
•1 tail rotor servo, standard size, high speed required	
•360 mm main rotor blades	
•58-62mm tail rotor blades	
•6 channel or more helicopter transmitter system, 2.4 Ghz frequency preferred	
Receiver 6 channel or more (working with your transmitter specs)	RADIO TRANSMITTER AND ELECTRONIC EQUIPMENT REQUIRED FOR ASSEMBLY

Oil

6.Package Illustration







ITEM NO.	DESCRIP TION	QTY.
1	Upper motor block	1
2	Round head screw(M2.5x6)	8
3	Motor mount bracket right	1
4	Motor mount bracket left	1
5	Main belt (147MXL-9MM)	1
6	Lower motor block	1
7	Bearing (4x10x4)	2
8	18T 2nd Stage pinion	1
9	1ST Stage pulley pin	1
10	50T Pulley	1
11	1ST Stage belt (63MXL-6mm)	1



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ITEM NO	DESCRIP TION	QTY.
1	Set Screw (M3)	1
2	Flat head screw M3X6	2
3	pinion 18T(19T)	1
4	Motor (1880KV)	1

This step can be completed at any time. But is easier before installing the 1st stage assembly into the model





ITEM NO.	DESCRIP TION	QTY.
1	UP Pulley holder SET	1
2	Bearing (3x7x3)	4
3	Belt guide pulley	2
4	CAP Screw (M3 x 24)	2
5	Down Pulley holder SET	1
6	Spacer sleeve	4
7	spacing washer	2



ITEM NO.	DESCRIP TION	QTY.
1	GYRO TRAY	1
2	Flat head screw M2. 5X6	4
3	Boom Clamp	2



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ITEM NO.	DESCRIP TION	QTY.
1	Round head screw (M2 x 6)	6
2	CYCLIC SERVO	3
3	Lock Nut (M2)	6
4	Round head screw (M2.5 x 6)	6
5	UPPER BEARING BLOCK	4
6	Bearing (8x16x5)	1
7	SERVO MOUNT	3

ITEM NO.	DESCRIP TION	QTY.
1	LOWER BEARING BLOCK	1
2	Bearing (8x16x5)	1





ITEM NO	DESCRIP TION	QTY.
1	Lipo tray button (right)	1
2	Round head screw (M2 x 4)	3
3	canopy locating pin	1
4	Side frame	1







Recommended lipo 1200 - 1400 mah. Size restrictions 39mm x 45mm x 116mm. Or unlimited length with front tail servo mount option (Refer to Step 26)

ITEM NO	DESCRIP TION	QTY.
1	Lipo tray	1
2	Flat head screw M2x6	2
3	LIPO 1200 - 1400mAh	1
4	Lipo tray fixed mount	1





ITEM NO	DESCRIP TION	QTY.
1	Tail shaft	1
2	Tail shaft locking collar	1
3	Set Screw (M3x3)	2
4	Tail Pinion(15T)	1
5	Tail Box	1
6	Bearings (4x8x3)	2



Ensure no free play in the tail shaft by fastening the Locking collar and pinion against the bearings.







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2

3



ITEM NO.	DESCRIP TION	QTY.
1	Set Screw (M2. 5x10)	1
2	Frame Washer (Red)	14
3	Rear canopy mounting bolt	1
4	CAP Screw (M2. 5 x 6)	12
5	Side frame	1
6	CAP Screw (M2.5 x 8)	2
7	Round head screw (M2 x 4)	1
8	Lipo sliding rail left	1
9	CF front electronics board	1
10	CAP Screw (M2. 5 x 10)	4

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ITEM NO.	DESCRIP TION	QTY.
1	Oscillating bearing	1
2	Swashplate Internal	1
3	Linkage ball A	6
4	Swashplate Outer ring	1
5	Swashplate mounting pin	1
6	Round head screw (M2 x 4)	5
7	Bearing (20x27x4)	1









TEM NO.	DESCRIP HON	QTY.
1	Round head screw (M2 x 6)	2
2	Anti-rotation bracket	1
3	Anti-rotation bracket mount	1
4	CAP Screw (M2.5x6)	2
5	Frame Washer (Red)	2



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ITEM NO.	DESCRIP TION	QTY.	ITEM NO.	DESCRIP TION	QTY.
1	Flange Bearing (2x5x2. 5)	2	6	Tail rocket arm	1
2	Lock Nut (M2)	1	7	Round head screw (M2 x 4)	2
3	Tail control arm	1	8	Washer (2x5x0.5)	1
4	Linkage ball A	1	9	CAP Screw (M2 x 14)	1
5	CAP Screw (M2 x 4)	2	10	Bearing spacer	1

Check that the pitch slider fork is square to the shaft and the slider does not bind. loosen bolts and adjust if required. 



ITEM NO.	DESCRIP TION	QTY.	The Chase 360 has 2 Tail servo location options,	ITEM NO.	DESCRIP TION	QTY.
1	Tail Servo	1	1. At the front, high in the frame for the lowest moment of inertia and optimal CG	1	Round head screw (M2 x 4)	4
2	CAP Screw (ST2 x 6)	4	2. Under the tail boom at the rear of the frame.	2	Tail Servo Fixed plate	1
3	Servo Mount	2		3	Tail Servo mount	2
				4	Servo spacer	1











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PARTS LIST 1					
Main rotor holder grips KC-360-001	Main rotor holder arm KC-360-002	Main Rotor head block Housing KC-360-003	Main rotor paddle dip KC-360-004	Washout control arm KC-360-005	Radius arm KC-360-006
2 x Main rotor head	2 x Main rotor holder arm	1 x Main Rotor head block Housing	2 x Main rotor paddle clip	2 x Washout control arm	2 x Radius arm
Complete Swashplate KC-360-007	Main Shaft Upper Bearing block mount KC-360-008	Servo mount KC-360-009	Swash rail mount KC-360-010	Motor mount bracket KC-360-011	Upper Motor block KC-360-012
1 x Swashplate (complete)	1 x Main Shaft Upper Bearing block mount	3 x Servo mount	1 x Swash rail mount	2 x Motor mount bracket	1 x Upper Motor block
Second reduction gear mount KC-360-013	Shaft sleeve KC-360 MA	Battery tray block KC-360-015	Pulley holder KC-360-016	Pulley KC-360-017	Rudder servo mount KC-360-018
1 x Second reduction gear mount	1 x Shaft sleeve	2 x Battery tray block	2 x Pulley holder	2 x Pulley	1 x Rudder servo mount
Slide panel KC-360-019	Main Shaft KC-360-020	Pitch connecting arm KC-360-021	Tail Shaft KC-360-022	Feathering shaft Dampers KC-360-023	The first level belt KC-360-024-W
2 x Slide panel	1 x Main Shaft	1 x Pitch connecting arm	1 x Tail Shaft	1 x Feathering shaft Dampers	1 x The first level belt 2GT-7.5mm

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PARTS LIST 2

The second level belt 147MXL-9mm KC-360-025	Tail belt 522MXL-4mm KC-360-026	Motor pinion gear18T KC-360-027-W	Motor pinion gear19T KC-360-028-W	First reduction gear50T KC-360-029-A	Second reduction gear 18T KC-360-030
1 x The second level belt 147MXL-9mm	1 x Tail belt 522MXL-4mm	1 x Motor pinion gear18T	1x Motor pinion gear19T	1 x First reduction gear50T	1 x Second reduction gear 18T
Main gear 80T KC-360-031	Auto rotation gear 71T metal KC-360-032-A	Tail shaft spiral bevel gear (umbrella gear) 15T KC-360-033	CF frame plate KC-360-034	CF front interval palte board KC-360-035	CF Bottom plate KC-360-036
1 x Main gear 80T	1 x Auto rotation gear 71T metal	1 x Tail shaft spiral bevel gear (umbrella gear) 15T	2 x CF frame plate	2 x CF front interval palte board	1 x CF Bottom plate
Tail boom mount KC-360-037	CF vertical stabilizer KC-360-038	Landing gear KC-360-039	Landing gear mount KC-360-040	Tail gear box KC-360-041	Tail picth Slider KC-360-042
	Martin and Andrews				
2 x Tail boom mount	1 x CF vertical stabilizer	2 x Landing gear	2 x Landing gear mount	1 x Tail gear box	1 x Tail picth Slider
Tail Pitch Assembly KC-360-043	Tail rotor holder KC-360-044	Tail Rotor Hub KC-360-045	Tail boom support KC-360-046	Tail pitch linkage rod KC-360-047	Swashplate anti-rotation bracket KC-360-048
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1 x Tail Pitch Assembly	1 x Tail rotor holder	1 x Tail Rotor Hub	2 x Tail boom support	2 x Tail pitch linkage rod	1 x Swashplate anti-rotation bracket

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PARTS LIST 3

Canopy mounting bolt KC-360-049	Main frame mount KC-360-050	Linkage Ball Set KC-360-051	Ball link set KC-360-052	Tail boom brace mount KC-360-053	CF Tail boom KC-360-054
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2 x Canopy mounting bolt	2 x Main frame mount	10 x Linkage Ball Set	1x Ball link set	1 x Tail boom brace mount	1 x CF Tail boom 425mm
Alu Tail Boom 425mm KC-360-054-L	Tail boom brace mounting ring KC-360-055	CF Tail Pitch connecting piece KC-360-056	Tail shaft locking collers ring KC-360-057	Frame aluminum anodise washers set KC-360-058	Blade holder KC-360-059
					CHINE
				00000	
1 x Alu Tail Boom 425mm	1 x Tail boom brace mounting ring	1 x CF Tail Pitch connecting piece			
Washers set	Screw set	Main Shaft Linder Bearing block mount	Vertical stabilizer mount & Pitch slider bracket	10 x Frame aluminum anodise washers set	1 x Blade holder
KC-360-060	KC-360-061	KC-360-062	KC-360-063	KC-360-064	KC-360-065
					(internet)
				MALINIAM	adrian
1 x Washers set	1 x Screw set	1 x Main Shaft Under Bearing block mount	1 x Vertical stabilizer mount & Pitch slider bracket	1 x Tail shaft spiral bevel gear (umbrella gear) 17T	1 x one-way
Thrust bearing F3-16M KC-360-066	Thrust bearing F5-10M KC-360-067	Flange bearing KC-360-068	Flange bearing KC-360-069	Flange bearing KC-360-070	Flange bearing KC-360-071
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\bigcirc	09				
1 x Thrust bearing F3-6mm	1 x Thrust bearing F5-10mm	1 x Flange bearing 2*5*2.5	1 x Flange bearing 4*8*3	1 x Flange bearing 4*10*4	2 x Flange bearing 6*10*3
4					

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PARTS LIST 4

Be KC	aring -360-072	Bearing 3*7*3 KC-360-073	Bearing KC-360-074	Bearing KC-360-075	Bearing KC-360-076	Bearing KC-360-077
2 >	x Bearing 3*6*2.5	2 x Bearing 3*7*3	10 x Bearing 5*10*4	1x Bearing 8*14*4	1 x Bearing 8*16*5	1 x Bearing 10*15*4
Ch KC	nase Main blade -360-078	Tall blade 62MM KC-360-079	Canopy KC-360-090			
	Current .					
1)	x Chase Main blade 360mm	1 x Tall blade 62mm	1 x Canopy			



REGULAR MAINTENANCE

Regular maintenance is required to keep the KDS AGILE 5.5 helicopter in optimal and safe flying condition. The model requires precise configuration of the components and settings to be kept by the owner. Maintain regular maintenance on the model to avoid accidents or loss, and optimum performance.

MAINROTOR CHECKLIST

- 1.Main Rotor Housing: when the main rotor housing is worn or faulty, there will be obvious vibration and poor flight control. Check the main rotor, main shaft, and feathering shaft for wear or deformity. Replace parts as necessary to eliminate imbalance.
- 2.O-Rings: The O-Rings will lose their elasticity over time. This will cause excess play on rotor and cause instability. Replace them as needed.
- 3.Main Rotor Holder: When the helicopter dose not fly or reacts sluggishly, even after checking for proper setting of pitch and throttle, check the following items: Plastic parts, Bearings, Ball bearings, Rotor Blades.
- Check for excess play or broken parts, or binding or restricted movement. It is important to check for main rotor balance before each flight. Operating the model when out of balance will cause excessive wear and premature failure of parts, possibly resulting in a dangerous situation.
- 4.Control Arm Assembly: Check regularly for cracked, worn, bent or binding control arms and pushrods. Smooth morement of control arms and linkages is required for stable, vibration free flight.
- 5.Swashplate:Check for excess slop in the main ball where the main shaft rides on, and slop or looseness between the plastic and metal surfaces. Swashplate wear will result in poor stability and lack of control during flight. Replace them as necessary.

FUSELAGE/CHASSIS

- 1.Main Shaft Bearing: Normal replacement interval for proper operation is between 60-100 flights. If flying 3D or extreme aerobatics often, inspect the bearing more frequently and shorten the interval as necessary.
- 2.One-way Bearing: One-way bearings have longer lifetimes. Failure is not common. To keep the one-way bearing in good operation, remove it to clean and lubricate after every 50 flights. If the main drive gear is loose, you should replace the one-way bearing.
- 3.Drive Belt: Agile and KDS uses only top quality, stretch-proof belts. It is however, impossible to prevent the belt from stretching or wearing out. Check belt tension regularly, and check for the wear on the teeth. Replace it as necessary.

LINKAGE RODS&CONNECTING PARTS

During assembly, take special care to keep the connecting parts in smooth operation, and avoid excess play or binding. Failure to do so will result in poor flight stability. The linkage rods and ends will break and wear due to normal usage, crashing, and poor maintenance and environment. Check for wear and proper operation regularly, replace them as needed.

TAIL ROTOR SYSTEM

- 1.Tail Rotor Control Set: Check the tail rotor bearing regularly. If there is excess play or gaps, replace it immediately. Avoid any binding or improper contact on the tail components and bearings as this will cause excess wear and heat, potentially melting or deforming the tail system.
- 2.Tail Unit Assembly: Avoid flying in tall grass or weeds. If grass or weed becomes lodged in the tail rotor unit, it will interfere with the operation, and cause the helicopter to lose control. Always check for foreign objects in the tail and clean them off immediately. Avoid using lubricants on the exposed surfaces of the model as it will attract and collect dirt and debris, and cause failure.
- 3.Tail Rotor Housing: Disassemble tail totor housing for cleaning and maintenance after every 50 flights. If the tail does not operate smoothly or shows any signs of stress or wear, please replace immediately.
- 4.Tail Rotor: Check the tail rotor blades regularly for damage, especitlly if the helicopter ever strikes the ground while flying, or after hard landings. Damaged tail rotor blades can induce vibration.



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... it's time to fly different!!!