

Astro Brushless 25 Geared System
25 Geared Motor with control p/n 825G
25 Geared motor without control p/n 825GM

Congratulations you have just purchased one of the finest motors made for model Planes. The new Astro 25 Brushless System has the latest advances in hi-tech, a samarium cobalt rotor and a sensorless speed controller. The Astro 25 Geared Motor is very small. It is only 1.35 inches in diameter, 3 in. long and weighs only 7 oz and the sensorless electronic speed control weighs only 1 ounce. The system is designed to run from on 10 to 16 cell Nicads or Nimh packs or 3 to 4 cell LIPO packs. On a 14 cell Nicad pack or a 4 cell Lithium pack the 825G can swing a 14x7 inch prop and deliver 700 watts.

The Sensorless Control has a decoder for the radio receiver signal and a micro processor for controlling the motor. The control is rated up to 45 amps. The entire control is very small measuring 1.5 inches by 1 inch and ¼. inch thick. The control weighs 1 ounce One circuit board contains the 1 amp BEC circuit and the other contains the commutation control chip and the power mosfets. The control comes with Astro Connectors.

No Adjustments The sensorless speed control has no adjustments and is set up to work with any airplane radio Control unit. The control adjusts to your radio low throttle Command as long as the command is between 1ms and 1.3 ms. Motor speed will increase linearly up to full throttle as the transmitter pulse width is increased by 0.7 ms.

Safe Start The speed control has a safe start feature. The software requires a continuous low throttle command between 1ms and 1.3ms for five seconds after battery power is applied before it allows the motor to start. When first setting up your transmitter you may have to set the throttle trim low and the throttle stick low before advancing the throttle stick to get the motor to run. Once the motor starts running the control will respond to radio command as long as battery power is present. If the motor does not start, set your throttle gain to plus 100% and minus 100% and set the transmitter throttle reversing switch to reverse position.

Programming This control has many programming features Please refer to the Castle Creations Programming instructions that are enclosed. We have programmed the control with these default settings

1. cut off voltage: 9 volts (option 5)
2. current limiting: insensitive (option 4)
3. Brake type: brake on (option 1)
4. Throttle type: auto calibrating (option 1)
5. Timing advance: standard (option 2)
6. cut off type: Soft cutoff (option 2)
7. pwm switching: 11kc (option 1)

Reverse The Astro 25 Brushless Motor can run in either direction. To reverse motor direction simply reverse the three pin connector between motor and speed control.

BEC This speed control has a BEC circuit so that you do not need to install a separate receiver NiCad in your model. Because we have incorporated the BEC this control will only work with six to sixteen Nicad or Nimh battery packs or two to four cell lithium polymer battery packs...

Astro 825 Geared Motor

Model name	025 Geared
Winding	4 turns #17
RPM/volt	2025 rpm/v
Resistance	0.033 ohms
No load current	1,200 ma
Rotor Magnets	Sm Cobalt
Bearings	Ball Bearings
Motor Diameter	1.35 inches
Motor Length	2.00 inches
Length with Gear	3.00 inches
Motor Weight	6.0 ounces
Weight with Gear	8.3 oz
Motor shaft	5 mm dia
Control Type	Sensorless
Control Rating	60 amps
B. E. C. Rating	1A at 5V
Connectors	Astro
Servo Connector	Universal
Max Nicads	16 cells
Max Lithium	4 cells
Maximum Amps	45 Amps
Maximum Power	750 watts

Other parts you may need

p/n	Name
101	Super Whattmeter
105	Servo Tester
109	Lithium Charger 1-9 cells
110	Deluxe Charger 1-24 cells
521	Astro 3 pin Connectors
525	Astro 2 pin Connectors

Geared 25 with 16x10 APC-E prop

9 volts	35 amps	365 watts	4,500 rpm
11 volts	41 amps	455 watts	4,900 rpm
12 volts	46 amps	554 watts	5,200 rpm

Geared 25 with 14x7 APC E prop

14 volts	32 amps	460 watts	6,900 rpm
15 volts	36 amps	550 watts	7,200 rpm
16 volts	41 amps	655 watts	7,400 rpm
17 volts	45 amps	760 watts	7,800 rpm

Geared 25 with 13x6.5 APC E Prop

14 volts	27 amps	383 watts	7,300 rpm
16 volts	35 amps	555 watts	8,000 rpm
18 volts	43 amps	788 watts	8,800 rpm

Geared 25 with 12x6 APC E Prop

15 volts	25 amps	381watts	7,900 rpm
16 volts	28 amps	431 watts	8,200 rpm
17 volts	32 amps	561 watts	8,700 rpm
18 volts	34 amps	645 watts	9,300 rpm

Geared 25 with 11x7 APC E Prop

15 volts	21 amps	325 watts	8,100 rpm
16 volts	24 amps	387 watts	8,500 rpm
17 volts	26 amps	459 watts	9,000 rpm
18 volts	29 amps	522 watts	9,400 rpm

Astro Flight Inc. 3 Watson
 Irvine CA, 92618
 Ph (949) 855-9903
 Fax (949) 597-1729
 Web: www.astrorflight.com

