

MAKE the ASPIRE EP ARF FLY

The ASPIRE EP has very good possibilities, but the "can" motor supplied is very marginal. More power is needed for a reliable climb and better handling in the wind. After several phone calls to the guys at Hobby Lobby International the following motor mods were decided on.

First the new power stuff.

The following item can be purchased from Hobby Lobby International.

- 1- HLAN4223 middle part yoke
- 1- HLAN5145 45mm spinner
- 1- HLAN2408 3.2mm prop shaft adapter
- 1- HLAN3148 or HLAN3448 12/7 prop blades.
- 1- Graupner GR6323 (speed 500, speed controller and 2.8:1 gearbox.
- 2- Mounting screws (metric pan or socket screws)
- 1- MCD600R motor mounts if you don't want to make your own motor mount.
- 1- NiCad 7 cell 1800mA pack.
- 1- Two pair of Anderson connectors (2 black and 2 red) or your pick.
- 1- Quick charger, ASTRO 110D, FMA 1001, DYMOND SUPPER TURBO and others. (I like the DYMOND)

Next the work.

1. Remove the can motor that comes with the aircraft. Cut the balsa trim ring off in front of the firewall.
2. Place the can motor on the front of the mount and mark the diameter of the motor.
3. Cut out the inside of the circle a bit smaller than the marked circle.
4. Test fit the new motor, trim mount as needed for a close fit.
5. Make a new motor mount or use the MCD600R.
6. Mount the motor with not too long screws. (metric treads)
7. Test fit the motor and the mount. Mark the mount so as to have the two mounting screws horizontal.
8. Remove the motor and place a layer of cling film over the motor. Reinstall the motor.
9. Use 5-min epoxy to mount the new motor mount to the aircraft old mount.
10. Install the new motor adapter and spinner. (don't mount the blades till you check the motor)
11. Sand the motor mount to about 45mm O.D. and a smooth flow to the spinner.
12. Hook up the receiver to the speed controller, turn on the TX, make sure the speed is set to LOW, and hook up the NiCads. (ALWAYS FOLLOW THIS PROCEDURE WITH ELECTRICS)
13. Check the rudder and elevators. Advance the speed control on the TX, stop just past the point where the motor starts. Run for about 10 to 15 min at the low RPM. This is a good time to range check the radio. The range should be about the same with the motor running as with the motor off. I like to mount the receiver behind the servos and use an extension cable to reach the BEC cable from the controller.
14. When satisfied all is OK, unplug the NiCads and turn off the TX.
15. Adjust the balance and make a way to prevent the NiCads from shifting in flight.
16. Install the blades per instructions. Check the two metric set screws on the middle part for tightness. I had a prop come off just after launch. Exciting!
17. Test fly. Look for a smooth transaction from power on to power off. If you have to hold hard down to prevent the ac from hanging on the prop, down thrust is needed. Remove the motor and install about a 1/32 wedge between the gearbox and motor mount on the bottom. (too much down thrust is safer than none) A small amount of down under full power and a fresh charge is ok.

This completes the motor modification the ASPIRE EP. With the new motor, one can climb at a very nice rate to gliding altitude. Get three or more good pulls + per charge and still have power to make several landing approaches.

Good flying to all!

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