



## INSTRUCTION MANUAL ADDENDUM

Please read the following Instruction Manual Addendum before beginning assembly of your Great Planes® ElectriFly™ Rifle.

### Motor Selection

When the Rifle is flown normally, using full power for straightaway 'speed runs' only and throttling back in the turns (also cooling the motor between surges), the ElectriFly 24-33-3180kV brushless inrunner Ammo™ motor (GPMG5155) and the APC 4.75 x 4.75 propeller are suitable. However, pilots who have the skill, eyesight and nerve to fly full-throttle the entire flight should select the ElectriFly 28-35-2700kV Ammo (GPMG5195) as it can withstand full current for the entire flight. With this motor, the 4.75 x 4.75 propeller may still be used. With either configuration it is a good idea to allow the motor to cool between flights. Note that the 28mm Ammo is approximately .5 oz. [14g] heavier than the 24mm Ammo. This will move the balance point forward, but should still remain within the recommended range. If necessary, to move the C.G. aft the receiver may be mounted through the air exit hole in the top of the fuselage behind the trailing edge of the wing. Finally, although the 28mm Ammo has a lower kV than the recommended 24mm Ammo, the larger motor is more "comfortable" when being pushed (flown full-throttle continuously), so any actual differences in top speed are virtually imperceptible. **Note:** Propeller adapter shafts in two different sizes are included with your Rifle. One is fitted for the 3.0mm motor shaft of the 24mm diameter Ammo, and one for the 3.2mm motor shaft of the 28mm diameter Ammo. Be certain to use the appropriate-size adapter shaft for your motor.

### Motor/Weight Limitations

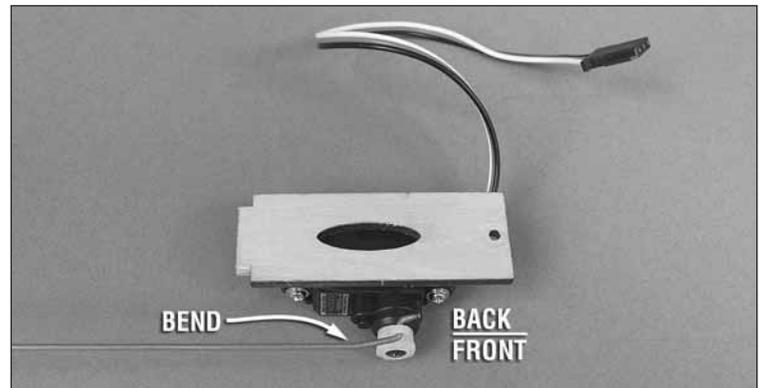
The Rifle is limited to 300 Watts on a 3S (11.1V) battery and 19.2 oz ready-to-fly weight (including battery). The Watt limit is a static reading (measured on the ground – not in flight). If experimenting with different power systems (motors, batteries, propellers), be certain to use an RC Electronics Watt's Up Meter (RELP0100) or similar to check your power system's Wattage. Also, the surest way to exceed the Rifle's weight limit is to use over-size batteries, so use only 3S (11.1V) batteries in the 1200mAh – 1500mAh range.

### Page 3, Servo Recommendations

The ElectriFly™ ES50 Nano servos recommended for the Rifle are suitable, but flight precision will be considerably increased with the use of servos such as Futaba® S3153 (FUTM0653), S3153MG (metal gear—FUTM0652) or S3156 (also metal gear—FUTM0656).

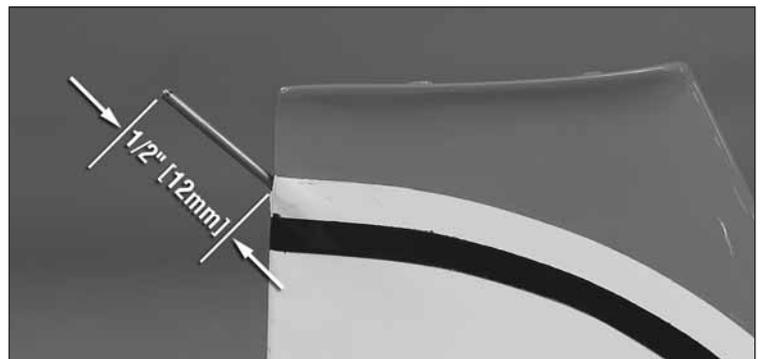
Please perform the following procedures with the corresponding steps in the instruction manual:

### Page 6, Step 6



For maximum control response it is important to eliminate as much resistance as possible from the elevator pushrod setup. One way to do this is to make sure the pushrod is accurately aligned with the servo arm. The photo in the manual shows the pushrod inserted into the back of the servo arm, but it may align better if installed through the **front** of the servo arm as shown in this addendum. Also, a slight bend in the pushrod may be necessary for perfection.

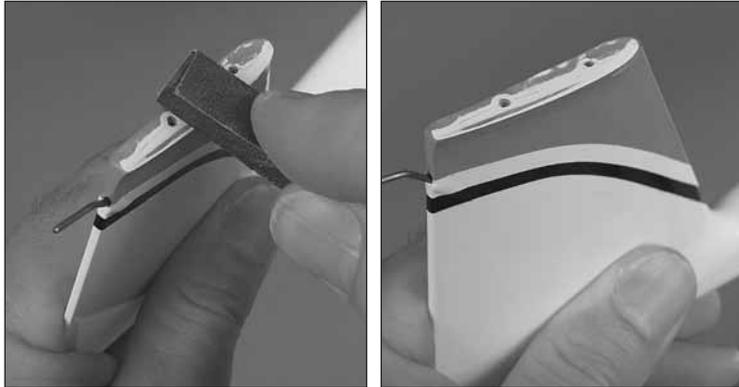
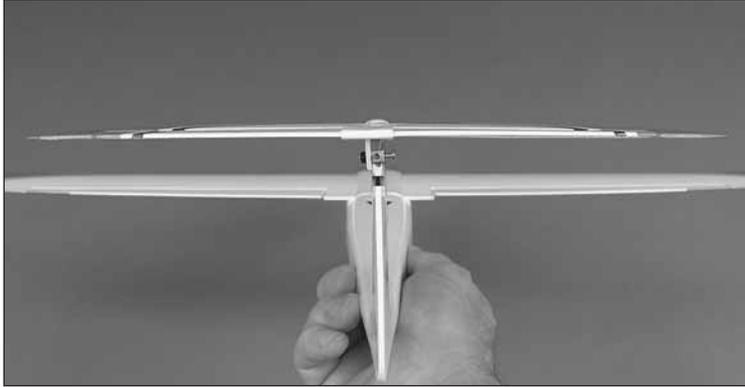
### Page 6, Step 8



Before making the bend in the elevator pushrod wire as shown in the manual, cut the excess elevator pushrod wire 1/2" [12mm] from the trailing edge of the vertical stabilizer. Also, be certain the bend is **no more** than 1/8" [3mm] from the TE of the vertical stab. Otherwise, the pushrod may not align with the connector on the horn, causing binding.

**Note:** Make certain the elevator servo arm is centered and the servo arm screw is in place before bending the wire. Once the pushrod is bent, the servo will be “locked” into place unless the wire is straightened, but this can be done only a few times before the wire becomes fatigued and weakened. Replacement pushrods can be made from K&S .047” [1.2mm] music wire.

#### Page 6, Step 10



After mounting the horizontal stabilizer, take a moment to mount the wing. View the model from the rear and make sure the stab is parallel with the wing. If the stab is not parallel with the wing, remove the stab and use medium/coarse-grit sandpaper wrapped around a balsa stick to lightly sand the high side of the stab saddle. **This will take little sanding**—usually just through the paint should be enough to bring the stab into alignment. Re-mount the stab, view the alignment and repeat if necessary.

#### Page 7, Step 11

**Before** tightening the screw in the screw-lock connector on the elevator, **make sure the elevator is centered** when the elevator servo is centered (this should be done with the radio on and the elevator trim centered). If the elevator has “up” trim, remove the horizontal stabilizer and use pliers to sharpen the bend in the pushrod. If the elevator has “down” trim, straighten the bend.

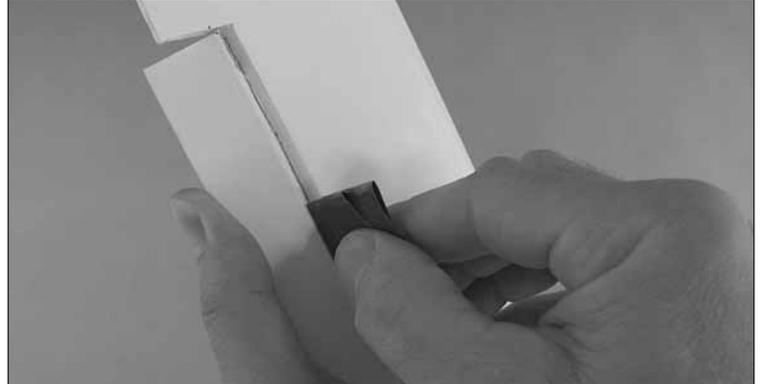
#### Page 8, Step 5

If you plan to experiment with different motors on your Rifle, it is not necessary to mount the ESC with double-sided foam adhesive mounting tape. This will make it easier to remove and install different motors without having to ‘un stick’ the ESC.

#### Page 8, Step 6

Before mounting the motor, look through the cooling holes in the front of the fuselage to see if the back of the motor mount is securely glued into position. If necessary, add two or three drops of thin CA to the edges of the motor mount and rotate the fuselage, allowing the CA to penetrate all the way around the edges. Allow to sit for a few minutes before applying a light mist of CA accelerator.

#### Page 9, Step 1



Before hooking up the ailerons, flex each aileron up and down a few times (they don’t have to pivot much as the maximum aileron throw is only 3/16” [5mm]). If the ailerons provide too much resistance you can free them up a little by removing any debris from the slots where the torque rods exit the wing. Also, **using great care not to damage the material hinging the ailerons to the wing**, use sandpaper or a razor blade to **carefully** remove any excess paint or debris from the hinge gap.

#### Page 10, Mount the Landing Skids

The landing skids are not needed if landing on typical grass found at most R/C flying sites. If your site is rough or hard packed, or if flying when the ground is frozen, then you should use the landing skids.

