

E-20 Timer and Motor. Installation Recommendations

Timer Recommendation

The E-20 timer now has the motor connector and the battery connector already soldered to it. No added soldering is needed on the new Plug and Play (PNP) versions of this timer.

It is important that when you hook up the unit to the battery and the motor, you make sure one of the following conditions exist:

1. Condition 1 - Prop is not installed on the motor
2. Condition 2: -Battery is not plugged in.

If the prop is installed with the battery plugged in, and you touch the hair trigger start switch, the prop will quickly twist and wrap up any wire attached to the timer. If this happens, quickly unplug the battery,. The battery should be kept unplugged until you are ready to fly or test the unit. Use only a single cell LiPo battery.

Resistors: Five resistors are included with the timer. These determine motor run time. The resistors provide motor run times beginning with 10 seconds up to a maximum of 50 seconds in 10 second intervals. When installing resistors, you will need to bend the leads and cut off the excess wire from the resistor such that it fits closely to the socket in the timer.

Caution: Always insure both resistor leads are fully inserted into both socket holes before pushing the start button. Failure to do this will result in the motor running until the battery is fully discharged.

The timer may be mounted on the fuselage with several small dabs of glue. Or you may make a plywood frame surrounding the timer and install the unit with small screws or bolts so that it can be removed easily from the fuselage if needed.

Experience has shown that this timer may be affected by moisture. Try to keep it dry. If it does get damp/wet, let it dry. Moisture doesn't seem to have a permanent effect on the timer.

Motor Recommendations

The motor comes with a brass gear attached to the shaft. Carefully remove this gear (I use a Dremel tool with a cutting disk), by grasping the motor shaft between the motor and the gear with a pair of needle nose pliers and cutting the brass gear with the Dremel). A better solution is to use a gear puller, if you have one. The 1 mm shaft is the same diameter as the prop center hole, but sometimes the prop hole is too small or too large. If so, carefully drill it out with a 1 mm drill to fit. If the prop hole is too large, slightly rough up the shaft of the motor with a fine jewelers file so that some friction exists when you push the prop onto the shaft.. If the prop is still loose on the shaft, take some microballoons (or baking soda) and CyA and add to the prop hole. You may need to redrill the hole to fit.

When installing the motor, make sure the + and - are correctly installed on the timer. If you bought the deluxe pack, you have a plug in arrangement that allows you to simply reverse the plug so that the motor is run in the correct direction.

When installing the prop, be careful not to put too much pressure on the motor shaft, as it can be pushed through the motor and render the motor useless. If the prop breaks, carefully pull it off the shaft. If it is on too tight, do not force, but instead, remove it with a razor saw or Dremel tool.

Important Notice: This timer/motor/propeller combination is a proven system. Any deviation using a larger motor, more than a single cell LiPoly battery, or much larger or smaller prop will void any implied or stated warantee. Do not expect sympathy or any refunds for damage caused by misuse of this equipment.

Thanks for your purchase. Please let us know what you think of your E-20 experience.

Willamette Modelers Club

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Nov. 11, 2014