



Hitec RCD USA







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Digital Servos

Digital Servo FAQ

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Q. What are the advantages of digital servos?

A-1. Instantaneous response
The digital micro processor is 10 times faster than an analog servo, this results in a much quicker response from the beginning with the servo developing all the rated torque 1 degree off of the center point.

A-2. Programmability
Using Hitec's proprietary programmer and servo test device, model HFP-10, Hitec digital servos can be programmed for, direction of rotation, center and end points, failsafe option, speed and dead bandwidth adjustment. This is great for matching sets of servos for deadband width, center and end points in giant scale aircraft applications and for reversing a digital servo when two are used on a "Y" harness.
For more information on this device, check out: [Digital Servo Programmer FAQ](#).

A-3. Enormous Standing Torque
The standing torque of a digital servo is 3 times that of its analog counterpart.

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Q. Do I need to program my Hitec digital servo before I use it?

A. Hitec digital servos will perform like standard servos out of the box. It is not required to program them before use.

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Q. Are there disadvantages to digital servos?

A. If there is any disadvantage to using digital servos it is power consumption. To obtain the high standing torque and quick response, digital servos require more from the power source than standard servos. By using a larger capacity battery and heavy duty harnesses, you will ensure proper servo performance.

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Q. Can I use "dry" (alkaline) battery packs with my digital servos?

A. Hitec cannot recommend the use of "dry" batteries when using digital servo products. The amperage demand of digital servos is greater than what these batteries are able to deliver.

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Q. How much amperage does a digital servo draw?

A. It depends on the servo and the load. For standard size digital servo, a good rule of thumb is 2A at max torque.

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Q. Can I use my digital servo with a LiPo battery and regulator?

A. Digital servos will work with Lithium batteries and regulators as long as both supply the required amperage. If your digital servos behave strangely with this setup, try a standard NiCad or NiMH battery instead.

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Q. When I move my transmitter stick quickly, the corresponding servo stops, then begins to move again.

A. Because digital servos can have a high initial startup current draw, an inefficient servo lead will cause a voltage drop which will stop the servo from moving. Make sure to use heavy duty (22 gauge) wire extension and switch harness. Also make sure regulators are able to handle the current requirements of digital servos.

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Q. Can I use loctite with my Karbonite gears?

A. It has come to the attention of the Hitec Product Service Department that some customers owning Hitec's KARBONITE gear servos are using thread locking compounds on the servo horn screws. Thread locking compounds such as the popular Loctite™ brand, are for use with METAL to METAL fasteners.

USING A THREAD LOCKING COMPOUND ON KARBONITE GEAR SERVOS WILL CAUSE THE PLASTIC TO FAIL.

Thread locking compound instructions typically warn against their use on plastics, as most plastic material will become brittle and shatter. If you or any of your friends have used thread locking compounds on plastic / KARBONITE geared servos, please cease using them immediately and contact a Hitec dealer for a replacement gear set.

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