

CANNON ELECTRONICS, INC.

SUPPLEMENT TO
SYSTEM OPERATING INSTRUCTIONS

Nickel cadmium batteries used in model aircraft will accept charging rates up to their design maximums for indefinite periods without cell damage. Most cells used by Cannon R/C Systems have a C/3 charge rating; this means the charge current can be up to 1/3 of the cell capacity rating. A 225 mah cell can be safely charged at a rate up to 225/3, or 75 milliamps. Even if the cells are completely depleted the battery would charge fully in about 4 hours at 75 ma. However, due to the cell rejection capability, an overnite charge would not be harmful.

Chargers supplied by Cannon are designed to provide outputs at 50 mils charge rate to both transmitter and receiver batteries. This is the normal C/10 charge rate for 500 mah cells. However, since most Cannon batteries have C/3 ratings, this same charger will safely handle all 225, 450, 500 and 550 mah batteries we supply.

Batteries of 100 mah capacity are another story; because of availability, some cells will be C/10 and some C/3. A C/10 cell requires a charge rate of 10 mils maximum, whereas a C/3 cell will tolerate 30 mils indefinitely.

In order to utilize the same charger, 100 mah batteries require a limiting resistor in the charging line to reduce charge current to a safe limit; 56 ohms for C/3 cells and ~~270~~¹⁸⁰ ohms for C/10 units.

A Charge Limiter Assembly is supplied with complete systems using 100 mah packs. The proper charge limiter will be supplied to match the system cells. This item must be used each time the battery is charged from the AC line. Otherwise, cell damage, cell explosion and/or possible injury may result. Cannon assumes no responsibility for equipment damage or personal injury resulting from improper handling of batteries.

Flite pack batteries should be charged as described above. If needed, a Charge Limiter Assembly is available for \$4.50. Please advise cell charge rating when ordering.

The Auto-Charger provides a means of fast-charging 100 mah batteries at the field to permit continued operation. We recommend the following charge procedure:

1. Charge batteries fully overnite at home with the AC Charger before the next day's flying. Do not give a boost charge with Auto-Charger before flying.
2. Follow the recommended schedule below for field recharge of 100 mah packs.

<u>Channels</u>	<u>Flight Time</u>	<u>Max. Recharge Time</u>
2	40 Min.	15 Min.
3	30 Min.	15 Min.
4	20 Min.	15 Min.

If lesser flight times are used and recharge is desired, reduce charge time by percentage difference between actual flight time and chart.

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WARNING

UNDER NO CIRCUMSTANCES SHOULD THE ABOVE CHARGE RECOMMENDATIONS BE EXCEEDED!!

CE-4 Servos may be centered through the external hole in output arm. Use a 1/16" Allen wrench. Seat wrench fully, then press down during centering operation. Rotate wrench in direction opposite to centering change desired.

CE-8 (Super-Mini) servos are centered in same manner, except that a small jeweler's screwdriver is used instead of the Allen wrench.

Super-Mini servos may be attached to airframe with servo tape or mounted with snap-in trays (\$1.49 each). Servos must be positioned in tray before mounting tray.

All System Schematics are now \$3.25 plus \$1.00 shipping and handling. Please specify model, year, type Tx, and Rx, and servos and battery.