

GENERAL QUESTIONS

on

RADIO CONTROL

How can I learn the basic fundamentals of radio control?

The simplest way is to actually build up a transmitter and receiver from a kit. If you follow the instruction sheets and read the Instruction Manual carefully, you will learn most of the answers. A good book for those who want to go further into the theory of radio operation is the "Radio Amateur's Handbook", published by the American Radio Relay League, West Hartford, Conn. (Price \$2.50).

On what frequencies are radio controlled models operated?

At present radio control models are operated on three major frequencies: 465 mc. and 28 mc. under the F.C.C. Citizens Radio Service, and the 50-54 mc. band. The 50-54 mc. band requires an F.C.C. operators license.

What are the requirements for an F.C.C. Operator's License?

To obtain an operators license it is necessary to take a written examination in radio theory and be able to send and receive Morse Code. Complete information on this can be obtained by writing to the F.C.C. in Washington, D. C.

CITIZENS SERVICE QUESTIONS

In the Citizens Radio Service, what is the fundamental difference between 465 mc. and 28 mc. operation?

Primarily, 465 mc. is higher frequency and this means that transmission and reception is more critical than 27 mc. 465 mc. receivers and transmitters are more expensive to construct. Also, 27 mc. receivers are more compact and lighter and therefore can be used in smaller airplanes. F.C.C. rulings require that 465 mc. transmitter be type-approved and sealed in such a way that the user cannot tamper with the inner parts. This means that the transmitter must be returned to the factory for repair and adjustments. On 27 mc. the owner may construct, repair, adjust, and maintain his own set, provided it is crystallized controlled.

Can 465 mc. and 27 mc. units be used together?

Yes, this makes an excellent way to have multi-channel operation.

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Who may apply for a Citizens Service License?

Any person 18 years or over can apply for a Class "C" Citizens Radio Station License. If the person is under 18, his parents or any adult sponsor can apply and authorize the modeler to use the equipment.

Where can Citizen's Service License Application be obtained?

A license application is included with every SUPER-AEROTROL Transmitter. Additional blanks can be obtained from any F.C.C. Field Office. Be sure to request the OVERPRINTED FORM F.C.C. 505. (The old form 505 is no good).

When should the license application be filed.

Submit the application by mail or in person at the nearest F.C.C. Field Office. (See attached list for office nearest you).

Can the Citizen's Service station licensee authorize the
use of his transmitter by others?

Yes. However, the licensee is held responsible for the strict observance of all applicable F.C.C. regulations.

Can the Citizen's Service Transmitter be used for the
remote control of objects other than models?

Yes, it can be used to operate displays but it cannot be used for any type of communication.

What does the Citizen's Service License Cost?

Nothing. Absolutely Free!

Can existing 52 mc. Units be converted to 27 mc.
Citizen's Service?

The 52 mc Receiver can be converted. The kit costs \$2.50. Since the Transmitter must be crystal controlled, the 52 mc. Aerotrol Transmitter cannot be changed over for Citizens Service. Complete information on this is included in the Super Aerotrol Instruction Manual.

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What will it cost to get started in radio control

If you already have a gas model that can be adapted to radio, you must buy a receiver kit, tube, escapement kit and batteries. This will cost you about \$23.00.

It is not necessary that you buy a transmitter immediately if a fellow club member has a transmitter. Some dealers are renting transmitters in order to help you get started. The Super Aerotrol Transmitter including antenna, batteries, tube and crystal control will cost you about \$28.00.

You will probably also want to own your own milliammeters for tuning your set. These cost \$3.50 for the Receiver meter and \$2.75 for the Transmitter.

What type of controls are recommended?

For the novice only rudder control should be used. Complicated mechanisms and multiple channel controls should wait until the flyer builds up experience.

What type of airplane should be used for radio control flying?

Select a model that will fly by itself without radio. A Good free-flight cabin design similar to the type used for payload contests makes a good radio control model.

The model should be balanced slightly nose heavy and a little less dihedral should be used in the wing than normally used for free-flight flying. A list of recommended designs is given in the Super Aerotrol Instruction Manual.

What range can I expect from radio control equipment?

Super-Aerotrol can be expected to operate up to 2,000 feet close to the ground and about one mile in the air. In general this is the practical limitation on the visual range of the operator.

How big a model should I build?

Radio Control Models are being built from 36-inch up to nine-foot wingspan. The beginner should choose a model in the middle size range, about 4 to 5-foot in Wingspan using a .09 to .19 engine.

What type of engine should I use?

Any type of glow plug, ignition, or diesel may be used. Since the engine will run for longer periods of time than in contest free flight model, chose an engine for long-wearing and dependable operation, rather than maximum power.

It appears that ignition engines and diesels work out best for radio control work in general, particularly when engine control is used.

What about "1/2-A" models for Radio Control?

Berkeley has just produced a new kit, the Brigadier RC-38" for 1/2A radio control flying. It will fly a little "hotter" than the Super Brigadier and must use batteries that are smaller, making it more expensive to operate.

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DO NOT SEND THE APPLICATION TO THE F.C.C. IN WASHINGTON, D.C.
UNLESS YOU RESIDE THERE.