SUGGESTED R/C CONVERSION

PLEASE READ—VERY IMPORTANT

Any and all related information herein, is only suggested information on R/C ing this model and not the one way or only way of doing things. Lindberg Products Inc. assumes NO LIABILITY for anything done by the builder in R/C ing his model, as we are showing only suggested ways of doing things—we are not recommending that anything shown herein is to be followed or used as the only way to do things. Lindberg Products Inc. also assumes NO LIABILITY for any hardware or equipment used in the conversion of this kit for R/C use. The way in which this kit will be used is at the discretion of the builder, and the builder MUST assume liability for the use of his model.





If you intend to R/C your model, the following changes and/or alterations must be considered. Also all materials mentioned should be purchased through hobby shops dealing in R/C models and equipment, as Lindberg Products does not manufacture, supply or sell any parts relating to the R/C conversion of their Hobby Kits.

A two channel R/C system is required for steering and motor control. NOTE: Use the frequencies intended for boating operation. See your hobby dealer for the proper frequencies.

Obtain a motor designed for use with R/C such as an Astro or Mabuchi brand. Use the proper voltage recommended by the manufacturer of the motor you obtain. NOTE:-DO NOT USE very high R.P.M. motors as the props and the gear drive in this kit are not designed for high R.P.M. running.

Two pushrods are needed for the rudder and motor controluse 1/16" dia. wire ends or equivalent (study sketch). Pushrods with adjustable connectors designed for R/C use may be used. Wood dowel can be 1/8" or 3/16" dia., a hard balsa strip can also be used.

For motor control, a DPDT-center off toggle switch was used in this basic layout. This switch will give you forward-off-reverse control. Other types of variable speed motor control units will work with your R/C equipment, but to start with the switch will work adequately. NOTE:-When using a DPDT center off switch, your model will be moving at its fastest forward and reverse speed, so operate your model with extreme caution always away from people and objects.

Use a silicone adhesive/sealant for mounting wood to plastic - such as R/C platforms and motor mounts. Sand plastic in areas where adhesive is applied.

We recommend using rechargeable NI-CAD batteries to power your R/C model. The initial cost is higher than dry cell batteries but they provide more power, last longer, are more dependable and because they are rechargeable they should last indefinitely.

Double surface foam tape is used to hold the receiver, batteries, servos and switch in place as shown.

Be sure to operate your R/C equipment with fresh batteries or if they are the rechargeable kind, with fully charged batteries.

Do not run your electric motor out of the water except for testing and then only for a short time. Heat generated in the gear train by running model out of water can cause gear failure.

Placement of antenna is important - see sketch for recommended location or follow R/C equipment manufacturers recommendation.

The battery box included in the kit can be put into the model in place of the wood platform to hold the motor batteries.

Model must be balanced in the water for proper performance. The easiest way to do this is to shift the batteries forward or backward in the hull till the boat floats with the rear end of the boat slightly lower than the front. Different motors and battery packs will vary the speed and performance of the models, so trial runs in the water will help determine the best balance.

Adjust rudder pushrod so that the rudder has the same amount of movement left and right when operating the rudder servo. Adjust motor control pushrod so that forward-off-reverse movements are free with no binding on the servo arm. The use of some type of "servo saver" should be used when using a DPDT syitch for motor control.

Be sure to lubricate the drive shafts, and if desired lubricate the gears to cut down on gear noise. Use petroleum jelly (vaseline) or lubriplate. See drive shaft modifications.

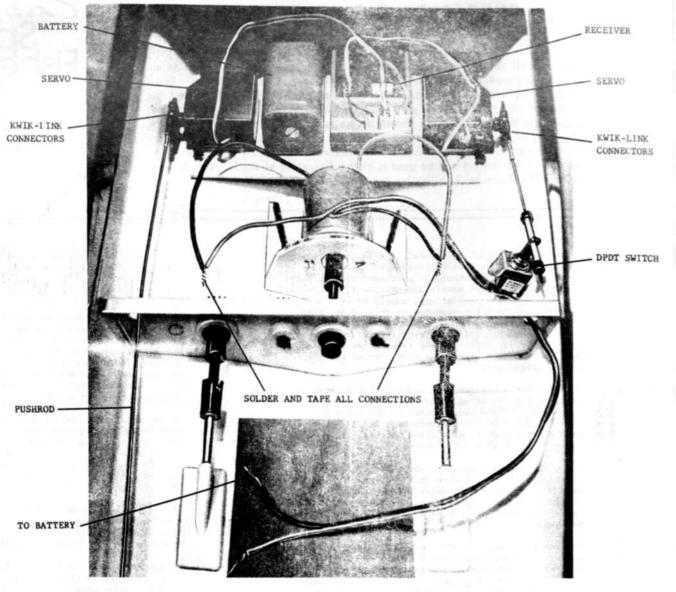
Do not run model too far out from the shore line until becoming faciliar with the way the model handles. Also check (with a watch) the running time of your model so you will know when to bring your model in for a battery re-charge.

A casting rod is a handy item to bring along when running model boats. It can be used to retrieve models that have quit running and are out away from the shore line. Use a tennis ball at the end of the line.

Always operate model boats away from any swimmers, waders, canoeists and fishermen to avoid any chance of accidents.

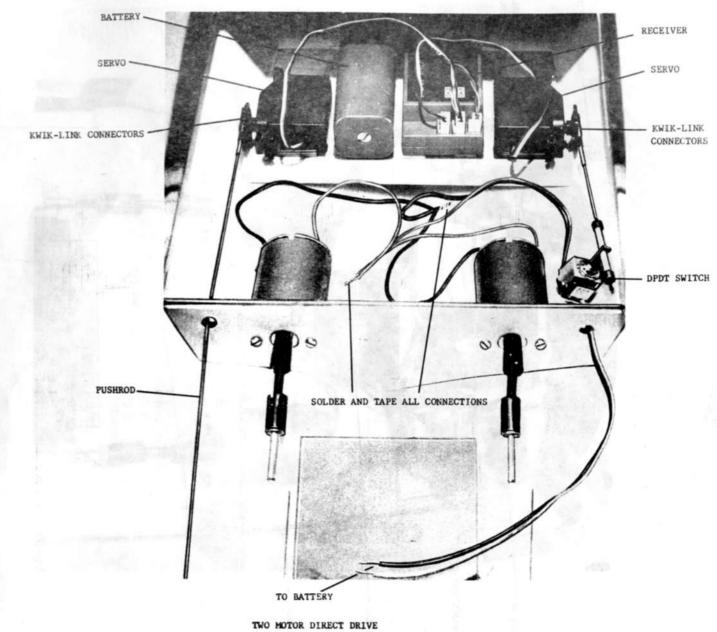
Operators of R/C models are liable and responsible for the way in which their models are used-so be careful and use good judgement when operating your R/C model. Follow all safety suggestions recommended by the manufacturers of any and all R/C related equipment and/or accessories.

Please understand that this R/C installation is very basic and intended for the beginner in R/C. With the many different ways equipment can be installed in R/C models, we are trying to snow a simple arrangement with the least amount of work and material involved. Observe all instructions included with your R/C equipment and safety rules in the operation of your model. Hobby shops dealing with R/C or a local R/C club would be helpful in the installation and operation of your equipment.

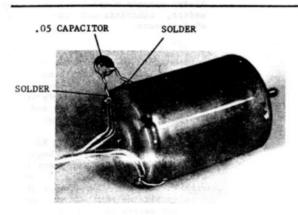


SINGLE MOTOR GEAR DRIVE

In this set-up use the gear train as shown in the assembly instructions. Make motor mount from 3/16" plywood-see full size layout. Use 3/16" plywood platforms to hold R/C equipment and batteries. Switch for R/C can be mounted to suit builder, usually on the main deck. Cement plywood to bull using silicone adhesive sealant. Mount R/C equipment to platform using double-surface tape.

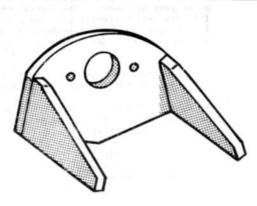


Make motor mount former from 3/16" plywood using the plastic former 2W as the template. Cement plywood to hull using silicone adhesive sealant. Mount R/C equipment to platform using double-surface tape

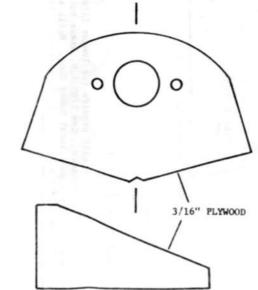


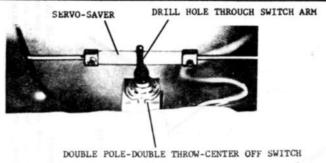
MOTOR SHIELDING

If the motor you intend to use is not shielded for R/C use, purchase a .05 capacitor and solder to motor as shown.



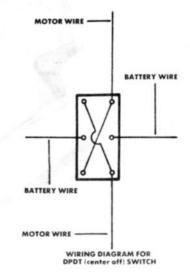
FULL SIZE MOTOR MOUNT LAYOUT

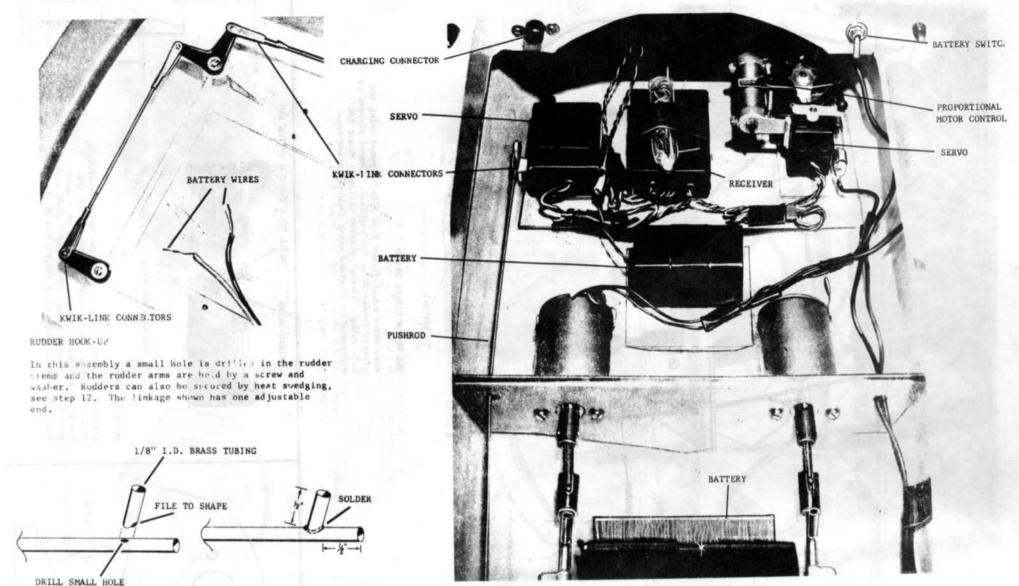




MOTOR CONTROL

A DPDT-center off switch is shown for motor control. Drill hole (for pushrod wire) through switch arm. Use a "servo-saver" as shown - it acts as a shock absorber to prevent damage to the servo-check with your Hobby Shop. See wiring diagram for DPDT switch.





DRIVE SHAFT LUBRICATION

This modification will provide for longer life and improved performance. Use 1/8" I.D. brass tubing available from your local Hobby Shop. Drill a small hole and solder as shown. Fill tubing with lubricating

TWO MOTOR DIRECT DRIVE WITH PROPORTIONAL MOTOR CONTROL.

This installation shows a complete set-up with proportional motor control.