

#### INFORMATION MANUAL

LaTrax welcomes you to the challenging world of Radio Control. We have designed this product, "The Top of the Line", with the highest quality parts available so that your experience with Radio Control will be a pleasant one. As with many other skill oriented fields, practice and performance are directly proportional. Therefore, do not be dismayed if at first you are unable to drive this machine. The model will respond beautifully with careful handling and gradual acceleration. Our engineering staff specified only the best parts available, so be happy in knowing you have purchased a quality product.

You have purchased the fastest 1/12 electric R/C car available. Actual speed has been clocked in excess of 30 MPH real time. This means if you were 1/12 your present size and could fit inside this model, you would experience speeds of over 360 MPH. Now think for a moment. If you were driving a car at such speeds, any quick movement of the steering wheel could send the car crashing out of control. This same logic also applies to model car racing. To be a successful driver, you must develop a smooth, gentle, steering technique. A quick, jerky, movement will only result in the car going out of control.

As in driving a full size racing machine, acceleration is also very important. It's neat to hear the squeal of tires and see smoke billow forth but the fact is, you're going "nowhere fast." Develop the skill of gradual acceleration at the maximum possible speed without breaking traction. This will give you better performance and prevent excessive tire wear due to tires slipping and ground loops.

Driving models by Radio Control requires yet another skill, that is being able to place yourself "mentally" inside the model. This method of R/C control helps to steer the car in the proper direction. Think for a moment! When a model is coming directly at

you and you wish to turn the car to **your** left, chances are you will turn the steering wheel on the transmitter to the left. The car will respond by turning left. Of course, this was to **your** right and was not the direction you desired. Well, its all quite confusing but if you place yourself inside the model "mentally", you will have no trouble negotiating turns right or left, coming or going. Practice "mental driving", it's difficuilt but attainable.

Speed is so important but "driving" skills win races. Until you know your machine and its limits, trying to push a little extra speed in the curves can be dangerous. It may cost you valuable seconds of time in straightening up after "hitting the boards", "spin outs", "ground loops" or "flips". The odds are you'll finish "in the money" if you drive smartly with careful handling and even acceleration.

The LaTrax R/C electric car uses a highly efficient electric motor which will withstand many abuses, one of which is impossible for a gasoline engine. The LaTrax motor has the ability when running at full speed forward to have the directional speed control on the transmitter placed in the reverse condition. The instantaneous reverse voltage on the motor causes a forward braking action, slowing the cars forward movement to a stop if desired. If left in reverse, naturally the car will back up. To develop this "braking" skill, practice by applying a very small amount of reverse when the car is moving forward. If the rear wheels jump up or down and spin backwards furiously, you applied too much reverse control. Repeat until you have the "feel" of just how much reverse it takes for proper braking action in the curves.

Follow these simple rules for maximum performance.

- Drive at slower speeds until you learn to handle and know the limits of the car.
- Steer the car with tender loving care, not sudden quick movement.
- Steady, even acceleration will prevent wheels smoking and ground loops.

- 4. Place yourself mentally inside the car when driving.
- 5. Speed is important but driving skills win races.
- 6. Last second braking technique is essential.

Please fill out and mail the enclosed FCC form in order to register your transmitter and receive your operators license.

#### TRANSMITTER FACTS

Your new LaTrax transmitter is one of the most powerful allowed by the government for hobby use. It is a crystal controlled, two channel, digital proportional controller operating at 27 MHz with 750 miliwatts of power. Harmonic suppression far exceeds the Federal Communications Commissions specifications and all parts are of the best quality attainable. Adjacent channel rejection is excellent, assuring you that, under normal circumstances, the receiver in your car will not be affected by another controller or C.B. radio. There are times, however, when your car or boat may get the jitters and appear to be a bit nervous and that is when another transmitter is held too close to your receiver antenna. There is nothing to worry about. Simply have the person causing the interference step back a step or two and the problem will be solved. Your LaTrax transmitter is a quality unit. Handle it with care and it will serve you for many years.

#### ABOUT YOUR RECEIVER AND SERVOS

Our engineering staff has spent many hours in reliability studies in order to develop a product capable of withstanding repeated abuse in crashes which are unavoidable in racing. The results are worthwhile for we now have such a vehicle and electronics. The receiver and servos have an equivalent of 42 transistors and integrated circuits. The performance is amazing and the car will stand up under abnormal use experienced in R/C racing.

If you have purchased our model with electronic speed control, you will be glad to know it has been "over designed." That is, it is capable of exceeding any voltage and current requirement our motor requires. The simple fact that it is electronic speaks for its reliability, and it is capable of delivering the maximum amount of current the motor asks for instantaneously.

#### ABOUT YOUR CAR

The new R/C model by LaTrax is precision made with the finest parts available. Our chassis is from aircraft grade structural aluminum. Tough nylon gears and bushings assure you of long lasting parts. Independent front suspension and a floating axle assures you of positive traction in the curves. Sponge tires let you get a grip on the pavement for maximum traction. The motor is so powerful that you will smoke the tires if you over accelerate and the body is really tough. We build in a power plant of 6 nickel cadmium (Ni-Cd) batteries capable of delivering all the power the motor requires, instantaneously!

This machine is designed for speed and cornering, so practice to win and you will.

#### CHARGER FACTS

A cigarette lighter cable charger is provided with the model. When using this model charger, you must manually time the charge for fifteen minutes maximum by your wrist watch or some other time keeping device.

LaTrax offers for sale as a separate item our model QC-6 which has an automatic timer built in. Just rotate the dial to fifteen minutes and it will automatically turn itself off when the car is fully charged.

This charge system offers the best way to get maximum time usage from your car. After you have completed one race, the quick charger will automatically bring your LaTrax car batteries up to a full charge in 15 minutes.

The 6 Ni-Cd batteries built into the car may be recharged 1,000 times, and are perfectly safe in this recharge condition as long as the charg-

ing instructions are followed. However, only the batteries built into this car are strong enough to take this 15 minute charge.

Never, under any circumstances, should an attempt be made to use the 15 minute charger on any other type or brand of battery. Serious injury will result. Do not use 15 minute charger on any other LaTrax product.

#### **MODEL INSTRUCTIONS**

#### NOTE!

Nickel Cadmium batteries generate internal heat as they are charged. When fully charged, they will be warm to the touch. Never, under any circumstances, should an attempt be made to place an extra or double charge on the batteries for they will become burning hot and destroy themselves.

#### CABLE CHARGER INSTRUCTIONS

- 1. Discharge car batteries by driving car until it stops.
- 2. Turn car OFF/ON switch to "OFF".
- 3. Insert small plug from charger into jack on car.
- Insert larger charger plug into cigarette lighter of an automobile (12 volt negative ground).
- Make sure red light on charger lights up. This indicates car batteries are charging. If light does not come on, remove and reinsert both plugs to make sure of good connection.
- Time charge for maximum of 15 minutes with wrist watch, clock or timer. DO NOT OVERCHARGE.
- Disconnect both cables after 15 minutes of charging. No additional charge time will make the batteries stronger. They are now fully charged and ready to use.

#### QC-6 AUTOMATIC QUICK CHARGER INSTRUCTIONS

- 1. Turn car OFF/ON switch to "OFF".
- 2. Insert small plug from charger into jack on car.
- Place DISCHARGE/CHARGE switch on charger to "DISCHARGE".

- When meter indicates less than 1 AMP, place discharge/charge switch to charge.
  - Insert large charger plug into cigarette lighter of automobile (12 volt system, negative ground).
  - Rotate timer switch clockwise to 15 minute position. AMP meter should read "5" and slowly drop to "3".
  - 7. Charger will automatically shut off after a lapsed time of 15 minutes.
  - Disconnect both cables after charging. No additional charge time will make the batteries stronger. They are now fully charged and ready to race.

#### WARNING

When you complete a race, there will be some amount of charge left in the batteries. "THIS CHARGE" must be drained from the car batteries before recharging by following Steps 1 - 4 above.

CAUTION! Failure to discharge batteries every time before recharge will destroy the batteries, shorten battery life, or may cause serious damage to car or person due to overheating of batteries as they are overcharged.

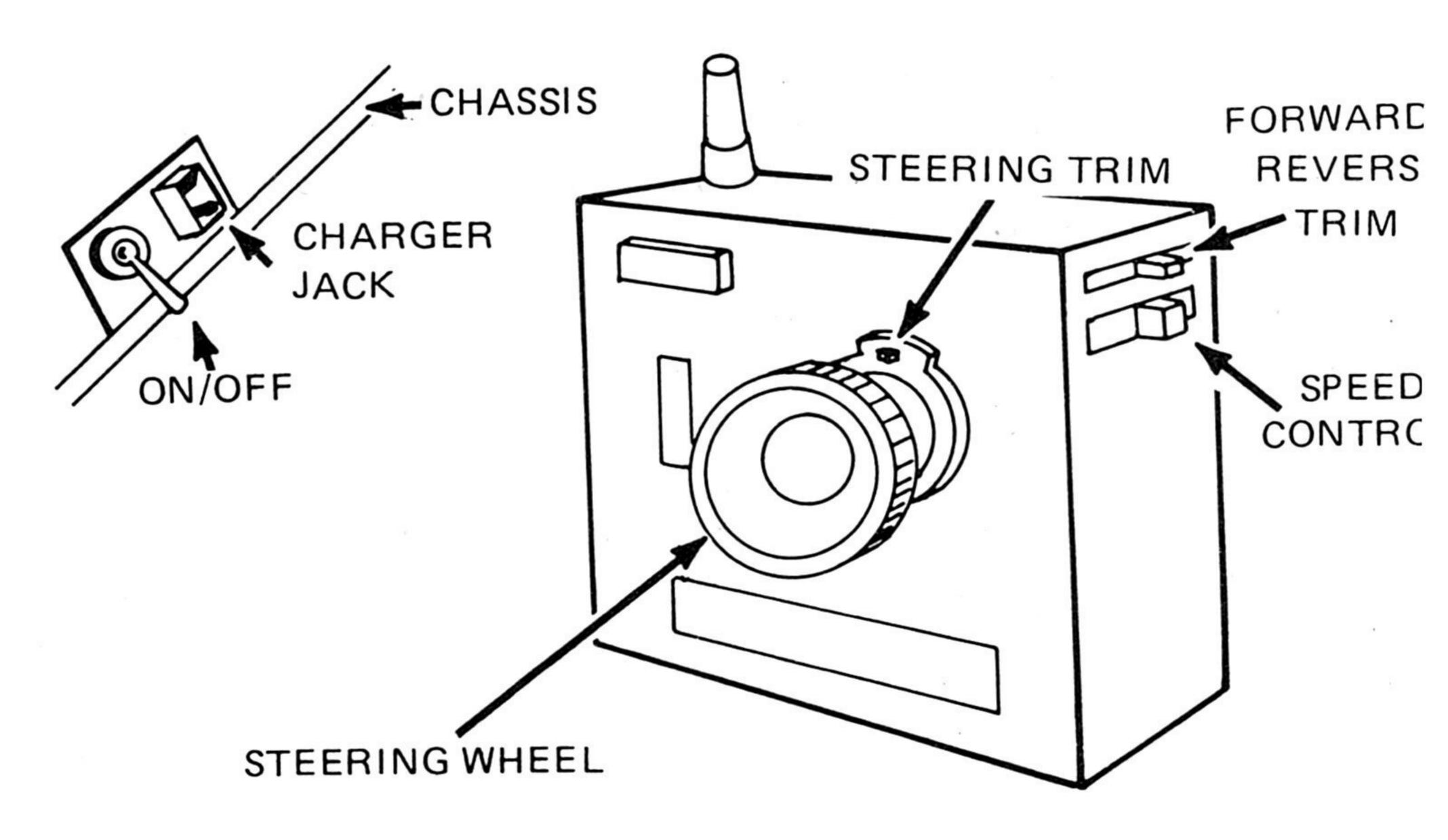
#### TRANSMITTER:

- 9. Remove back of transmitter.
- 10. Place 8 penlight batteries in transmitter observing polarity.
- 11. Replace back of transmitter.
- 12. Turn transmitter off/on switch to on position.

#### CAR:

- 13. Place car upside down for check out.
- 14. Turn car off/on switch to on position.

- 15. Rotate transmitter steering wheel from side to side. Car front wheels should move from side to side.
- 16. Observe front wheels to see if they return to a straightahead position when steering wheel is released.
- 17. If not, adjust steering trim control on transmitter slightly for straightahead position.
- Do not attempt to hold rear wheels. Serious tire burns may result.
- 19. Move forward/reverse speed control slowly forward, then reverse. The rear wheels should rotate one way, then the other.
- 20. If rear wheels rotate without commands, adjust transmitter forward/reverse trim control slightly until they stop. If car creeps forward or reverse, adjust trim until it stands still.
- 21. Turn the car right side up. You are ready to race.
- 22. Make sure you have plenty of space, at least a three car driveway, just to start and stop the car. A large parking lot is better.
- 23. This thing is very fast. Please be careful!



### PLEASE BE CAREFUL AROUND YOUNGSTERS

- \* Do not race in a crowd without "PROTECTIVE BARRIER" boards, sealing off race track. (See section on suggested track layouts.)
- \* Do not race in presence of youngsters under 8 without "ADULT SUPERVISION."
- \* Do "EXPLAIN" to everyone the danger in trying to hold the car by picking it up.
- \* Explain that if forward/reverse control on transmitter is accidentally moved, the rear wheels of the car will rotate so fast and so quick that "SERIOUS BURNS" will occur wherever the tires touch the human body.
- \* Do not allow spectators to pick up your car. If they do, do not touch "SPEED CONTROL" and do not turn transmitter off. Very calmly, ask them to put the car down while explaining the possible danger.
- \* Do not turn your transmitter off while car is switched on because your car will only acknowledge commands from your transmitter as long as it is on. If the transmitter is turned off, the car will try to listen to any commands from any transmitter and may appear nervous or jittery and try to turn or move forward or reverse which could cause injuries.
- \* Turn switch on transmitter to the on position first, then the car.
- \* Turn switch on car to the off position first, then the transmitter.
- \* Race on clean dry surface only. Sweep away pebbles as they may cause you to wreck your car. Trying to drive over pebbles with a model car is like trying to drive over bowling ball size rocks with a full size car.
- \* Remember, this thing is fast. Please be careful.

#### LIMITED WARRANTY

Your radio controlled car, transmitter and charger are precision electronic devices which will serve you for many years with normal care.

LaTrax warrants their products\* against defects in materials or workmanship for a period of 30 days from date of purchase. This warranty applies only to the original owner shown on this warranty card. Any merchandise that has been repaired by an unauthorized party, tampered with or abused is not covered by this warranty.

During warranty period, take unit to Authorized Service Center or send, prepaid and insured, in original package or one offering similar protection along with brief letter explaining reason for service to address below.

After warranty period, LaTrax or an Authorized Service Center will repair or replace unit at our discretion upon return at the following flat rate schedule:

Car (includes parts and labor)	\$14.95/Ea.
Transmitter (includes parts and labor)	\$14.95/Ea.
Charger (includes parts and labor)	\$ 9.95/Ea.
Batteries (6 Ni-Cd)	\$29.95/Set

If an Authorized Service Center is not convenient, return merchandise with check, money order, Mastercharge or VISA number for correct amount to:

> Service Supervisor LaTrax Service Center 2714 W. Kingsley, Suite B Garland, Texas 75041

Tel. 214/271-5654

\*Due to racing environment, tires and car body are not covered by warranty.

The warranty gives you specific legal rights and you may also have other rights which vary from state to state.

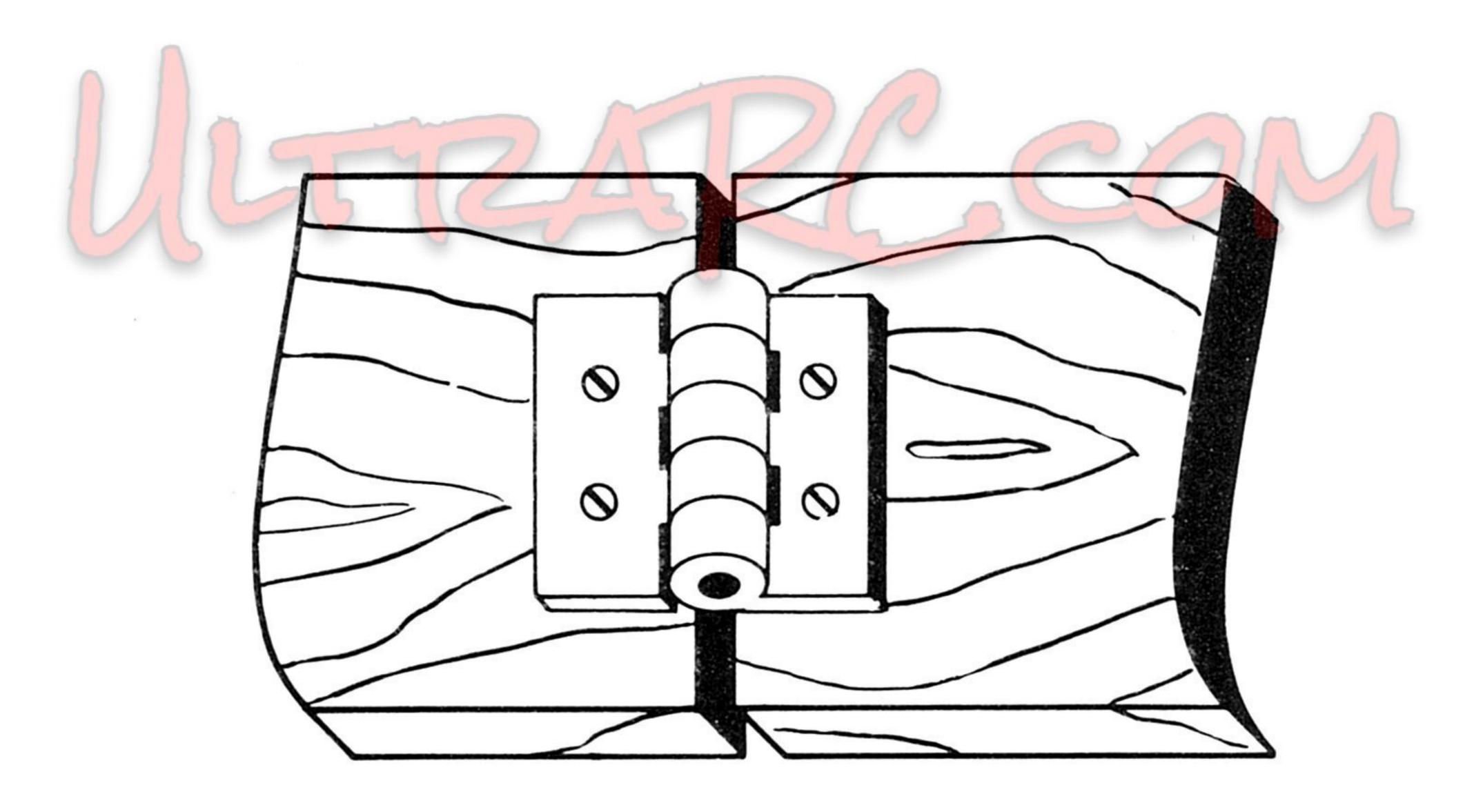
Print serial number, dealer name, date of purchase and retain for
future reference.
Transmitter Serial Number
Date of Purchase
Dealer Name
Address
City-State
MUTRANKOM

#### TRACK LAYOUT

Safety is always first in any track layout. Make sure your protective barriers are up and securely fastened before starting the race. Below are suggested outlines of functional courses which require driving skill to complete. The heavy border lines represent 1 x 6 barrier boards hinged on edge to protect spectators and participants. (See detail.) The operators platform should be placed on outside of track on center line.

Pylons for Gymkhanas race can be gallon milk jugs filled with water.

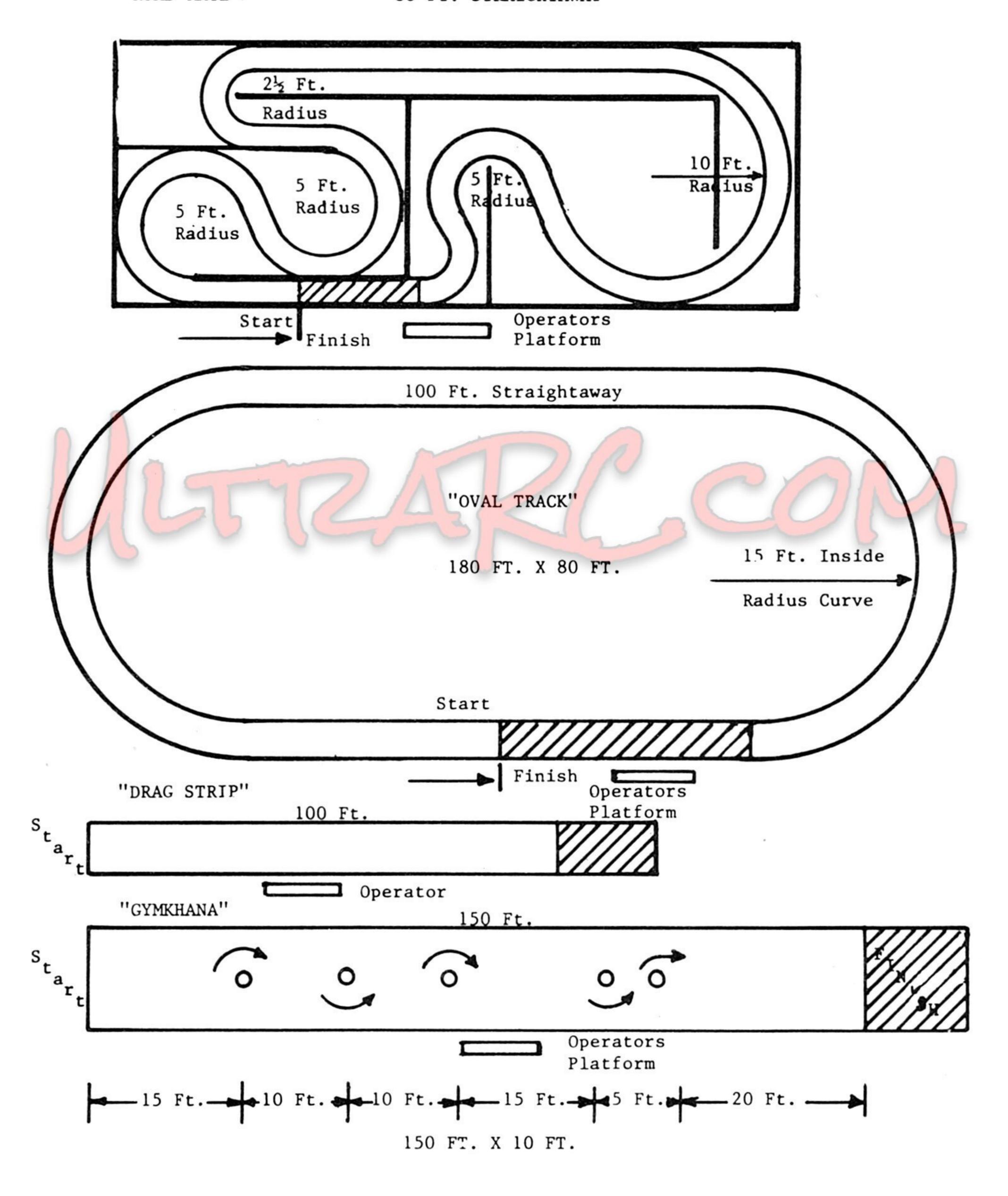
Detail:



130 FT. X 50 FT.

"ROAD RACE"

80 FT. STRAIGHTAWAY





BRILLIANT ELECTRONICS IND., INC.

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LaTrax Corporation 2714 W. Kingsley, Suite B Garland Texas 75041 Tel. 214/271-5654





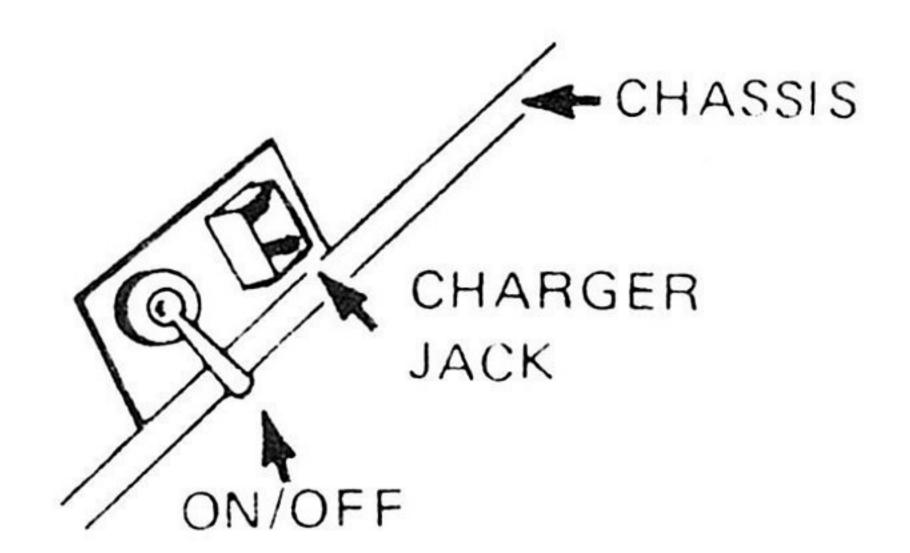
Designed for use with LaTrax Professional Race Car LTX-40

#### WARNING

Use only on G.E. Super NiCd batteries in Latrax products designed for this charger. DO NOT charge flashlight, heavy duty or alkaline batteries. Leakage, fire or explosion may occur causing personal injury.

## "Quick Charge" BATTERY CHARGER

Your Latrax QC-6 Battery Charger was designed for use with the Latrax Professional race car LTX-40. This charger uses an automobile 12-volt cigarette lighter for the convenience of being able to charge your car at the race site. Follow the instructions carefully to insure longest life possible from your G.E. Super Ni Cd batteries.



On the underside of your race car on the aluminum frame, you will find the charger jack next to the on/off switch.

#### INSTRUCTIONS

- 1. Turn car on/off switch to off
- 2. Insert small plug from charger into jack on car
- 3. Place charge/discharge switch on charger to discharge
- 4. Turn timer knob to 15 minutes and note reading on meter. When

- needle points to 0, batteries are discharged and timer may be turned back to 0 minutes
- 5. Insert larger charger plug into 12-volt automobile cigarette lighter
- 6. Place charge/discharge switch to charge
- 7. Rotate timer to 15 minute position which turns on charger
- 8. Charger will automatically shut off after a lapsed time of 15 minutes
- Disconnect both cables after charging. The car batteries are now fully charged. NO ADDITIONAL CHARGE will make the batteries stronger.



**CAUTION:** Failure to discharge the batteries everytime before recharging will destroy the batteries, shorten battery life, or may cause serious damage to car or personal injury due to overheating of batteries.

#### LIMITED WARRANTY

Your "Quick Charge" Battery charger is a precision electronic device which will serve you for many years with normal care.

LaTrax warrants their products against defects in materials or work-manship for a period of 30 days from date of purchase. This warranty applies only to the original owner shown on this warranty card. Any merchandise that has been repaired by an unauthorized party, tampered with or abused is not covered by this warranty.

During warranty period, take unit to Authorized Service Center or send, prepaid and insured, in original package or one offering similar protection along with brief letter explaining reason for service to address below.

After warranty period, LaTrax or an Authorized Service Center will repair or replace unit at our discretion upon return at the flat rate of \$6.00 each which includes parts and labor.

If an Authorized Service Center is not convenient, return merchandise with check, money order, Mastercharge or VISA number for correct amount to:

Service Supervisor LaTrax Service Center 2714 W. Kingsley, Suite B Garland, Texas 75041 Tel. 214/271-5654

The warranty gives you specific legal rights and you may also have other rights which vary from state to state.