

Tower Trainer™ 40 Ready-to-Fly

RADIO CONTROLLED MODEL AIRPLANE



WARRANTY

Tower Hobbies® guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Tower Hobbies' liability exceed the original cost of the purchased kit. Further, Tower Hobbies reserves the right to change or modify this warranty without notice.**

In that Tower Hobbies has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.

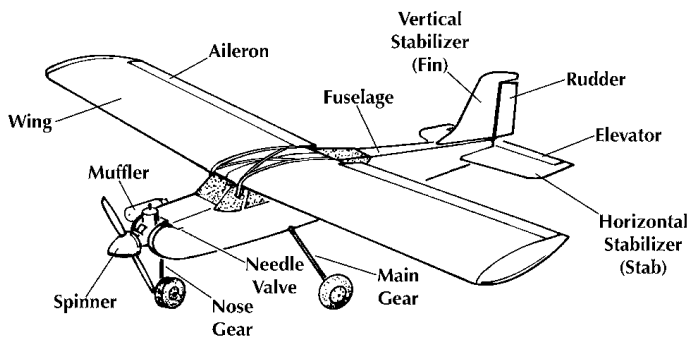
READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.

INTRODUCTION

Congratulations and thank you for purchasing the Tower Trainer .40 Ready-to-Fly. You've made the right decision by purchasing a "real" model airplane with a .40-size engine and a 4-channel radio. Once assembled and set up, there will be no fiddling with a temperamental engine or constant troubleshooting to figure out how to get the model to fly. Under the guidance of an experienced flight instructor, all you'll have to do is concentrate on learning to fly. And after you've mastered the Trainer .40, the engine and radio may be installed in your next model!

There are two parts to this manual. The first part, **Assembly**, guides you through a few simple steps to put the model together. The second part, **Setup**, takes you through initial adjustments and flight preparation. **Do not** overlook any of the important setup procedures and follow the instructions **all the way to the end**. Anything skipped in the shop will have to be done at the field.

Here are the names of some of the parts of the model.



IMPORTANT: Once mastered, piloting a model aircraft can be one of the most enjoyable hobbies around. However, it cannot be stated **strongly** enough that, if you do not already know how to fly an R/C airplane, you will probably **not** be able to fly this model by yourself. It may appear to be easy, but over-controlling and disorientation quickly overcome inexperienced fliers, swiftly ending their first flight. The **best** thing you can do to insure success is to **find a flight instructor** who will inspect your model for airworthiness and provide flying lessons. If you haven't yet done so, **contact the local hobby shop and ask them to introduce you to an instructor or an R/C club representative**. If there is no club or experienced R/C pilot nearby, it would be worth even a long drive to find one—if only for just a few flight lessons (then you'll have an idea of what to expect).

If there is no hobby shop in your area, contact the AMA (Academy of Model Aeronautics), the governing body of model aeronautics. The AMA can direct you to the closest R/C club whose membership should have qualified flight instructors. With the added benefit of insurance coverage provided by the AMA, most clubs require AMA membership to fly at their field.



Academy of Model Aeronautics

5151 East Memorial Drive

Muncie, IN 47302-9252

Office: (765) 287-1256

Toll Free: (800) 435-9262

Fax: (765) 741-0057

or via the internet at: <http://www.modelaircraft.org>

PROTECT YOUR MODEL, YOURSELF & OTHERS...FOLLOW THESE IMPORTANT SAFETY PRECAUTIONS

1. Your Tower Trainer .40 Ready-to-Fly should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, the Tower Trainer .40 Ready-to-Fly, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.

2. You must assemble the model **according to the instructions**. Do not alter or modify the model, as doing so may result in an unsafe or unflyable model. In a few cases the instructions may differ slightly from drawings or sketches. In those instances the written instructions should be considered as correct.

3. You must check the operation of the model before **every** flight to insure that all equipment is operating and that the model has remained structurally sound. Be sure to check clevises or other connectors often and replace them if they show any signs of wear or fatigue.

We, as the kit manufacturer, provide you with a top quality kit and instructions, but ultimately the quality and flyability of your finished model depends on how you build it; therefore, we cannot in any way guarantee the performance of your completed model, and no representations are expressed or implied as to the performance or safety of your completed model.

KIT INSPECTION

Before starting to build, inspect the parts in this kit to make sure they are of acceptable quality. If any parts are defective or damaged, or if you need assistance with assembly, contact **Product Support**.

Product Support:

Phone: (217) 398-8970

Fax: (217) 398-7721

E-mail: airsupport@towerhobbies.com

ENGINE STARTING

The Tower .46 engine included with this model uses ABC construction (an Aluminum piston with a Brass cylinder liner that is Chrome plated). There is no piston ring, so the fit between the piston and the liner is intentionally tight. When the engine is new, this built-in “tightness” causes the propeller to be difficult to rotate when the piston gets to the top—the engine may even squeak. Do not be alarmed because **this is normal**. After the engine has been run a few times the propeller will be easier to turn and the squeaking will disappear.

Notice: Due to the initial “tightness” of this engine, using an electric starter is highly recommended—at least until the engine has been broken-in. If you do not have an electric starter, starting the engine with a model engine starting stick is acceptable. If started this way, first lubricate the engine with model engine after run oil (HCAP3000). To do so, remove the glow plug, add five to seven drops of oil to the top of the piston, then rotate the propeller at least one-dozen times. Replace the glow plug. Now the engine may be started with the starting stick.

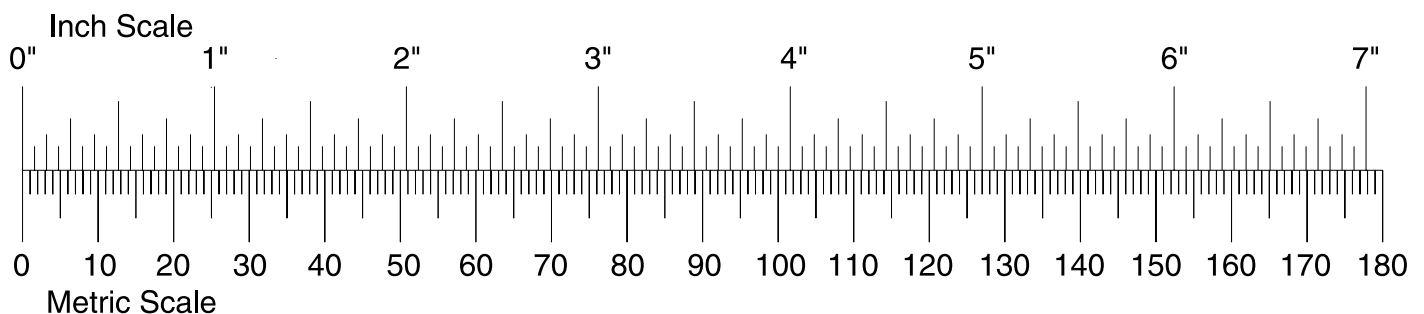
FIELD EQUIPMENT



When ready to fly, you’ll need the equipment to fuel the plane and start the engine. The most important items include an electric starter, 12 Volt battery, fuel pump (electric or hand-crank), fueling lines and fittings and a 1.5 Volt glow plug igniter. Your flight instructor may share his equipment with you for a while, but eventually you’ll need your own. Visit your local hobby dealer or see the Tower Hobbies catalog for a full selection, descriptions and pricing. You can also visit our web site at www.towerhobbies.com.

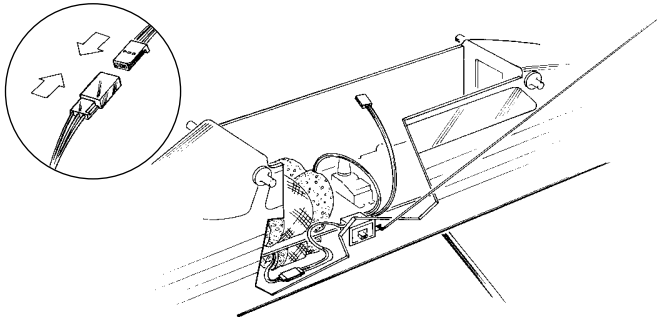
METRIC CONVERSIONS

1/64" = .4 mm	3/8" = 9.5 mm	12" = 304.8 mm
1/32" = .8 mm	1/2" = 12.7 mm	18" = 457.2 mm
1/16" = 1.6 mm	5/8" = 15.9 mm	21" = 533.4 mm
3/32" = 2.4 mm	3/4" = 19.0 mm	24" = 609.6 mm
1/8" = 3.2 mm	1" = 25.4 mm	30" = 762.0 mm
5/32" = 4.0 mm	2" = 50.8 mm	36" = 914.4 mm
3/16" = 4.8 mm	3" = 76.2 mm	
1/4" = 6.4 mm	6" = 152.4 mm	



ASSEMBLY

Charge the Batteries



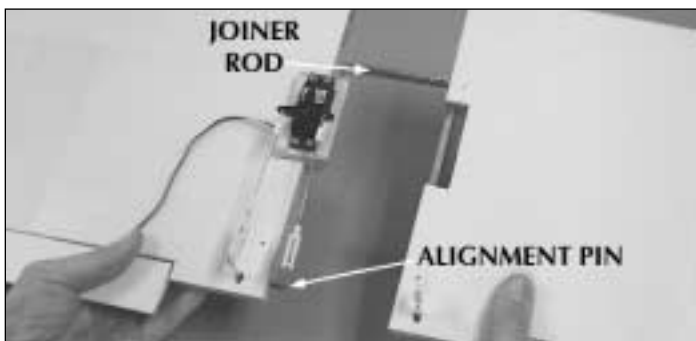
○ 1. For safety reasons, the model is shipped with the battery pack in the model (the receiver battery) disconnected. In the fuselage, connect the plug from the battery pack, colored red, to the plug from the on/off switch, labeled "BATTERY."

○ 2. Presently, the batteries are not fully charged. They may require additional charging for setting up the radio later. If you plan to assemble the plane now, the batteries may be charged later. If you plan to assemble the plane later, charge the batteries following the instructions in the instruction manual supplied for the radio control system. **Note:** When charging the receiver battery, connect the charger to the plug labeled "CHARGE" inside the fuselage.

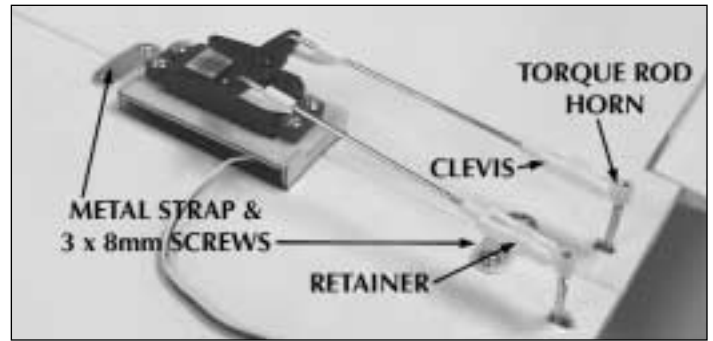
Assemble the Wing



○ 1. Guide the **aileron servo wire** under the **servo tray** and out of the wing.

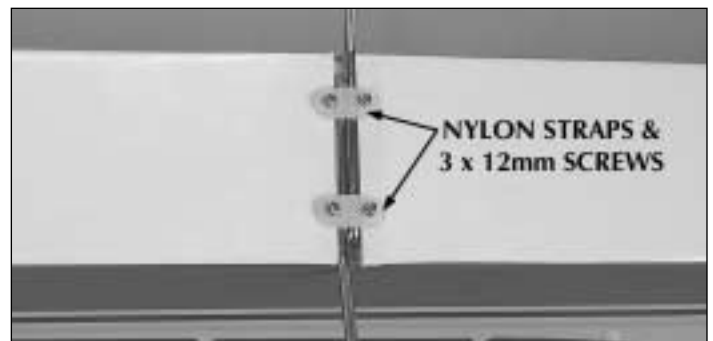


○ 2. Join both wing halves using the **joiner rod** and the **alignment pin**.



○ 3. Use two **metal straps** and four 3 x 8mm screws (the small screws with the washers attached) to hold the wing halves together. (Note the metal strap near the trailing edge of the wing, partially concealed in the photo). Connect the **pushrods** to the **torque rod horns** with the **clevises** and **clevis retainers**.

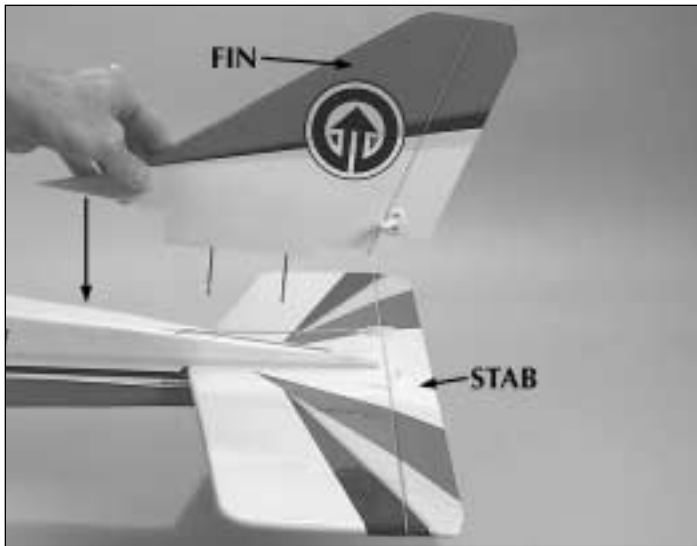
Assemble the Fuselage



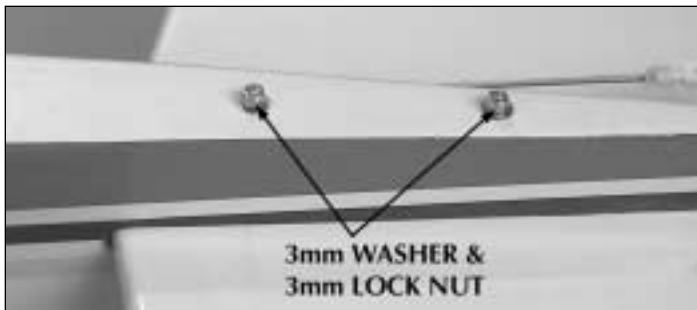
○ 1. Insert the **main landing gear wires** into the holes in the **landing gear rail** in the bottom of the fuselage. Secure the gear with two **nylon straps** and four 3 x 12mm screws.



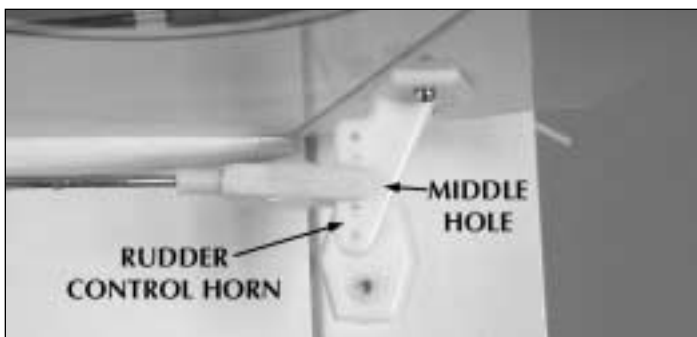
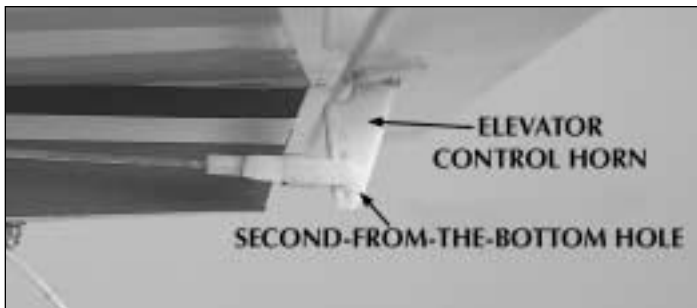
○ 2. Insert both wood **wing dowels** into the fuselage. Secure both ends of each dowel with a plastic **dowel cap** and a 3 x 8mm screw.



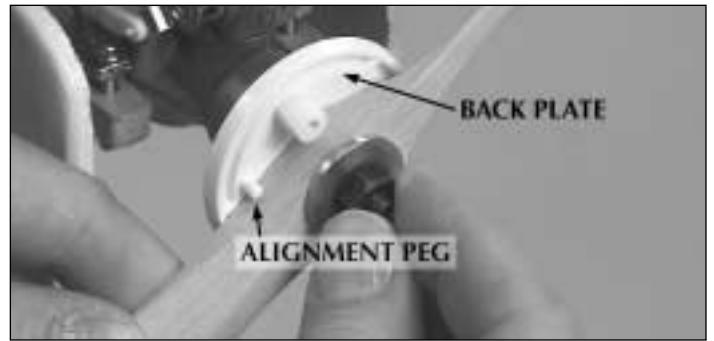
○ 3. Insert the **horizontal stabilizer** (also referred to as the “stabilizer,” or just “stab”) into the fuselage. Insert the **vertical stabilizer** (also referred to as “fin”) into the stab, guiding the threaded rods through the holes in the stab and the bottom of the fuselage.



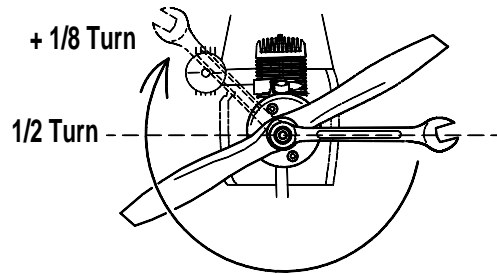
○ 4. Secure the fin and stab with a 3mm washer and 3mm lock nut on each threaded rod. Be certain to tighten the nuts securely, but do not over tighten so as to damage the bottom of the fuselage.



○ 5. Connect the clevis on the **elevator pushrod** to the **second-from-the-bottom** hole in the **elevator control horn**. Connect the clevis on the **rudder pushrod** to the **middle** hole in the **rudder control horn**.



○ 6. Fit the **spinner back plate**, followed by the **propeller**, **propeller washer** and **propeller nut** on the engine. Position the propeller so it is contacting the molded-in **alignment pegs** on the back plate. Tighten the prop nut with your fingers.



○ 7. Use a 7/16" wrench, an 11mm wrench or a crescent wrench to tighten the prop nut 1/2 turn, plus 1/8 turn. Fit the spinner cone to the back plate, then use a #1 Phillips screwdriver to tighten the spinner screws.



CAUTION: *The model is not yet ready to fly. Proceed to the setup procedures in the following section to prepare the model for flying.*

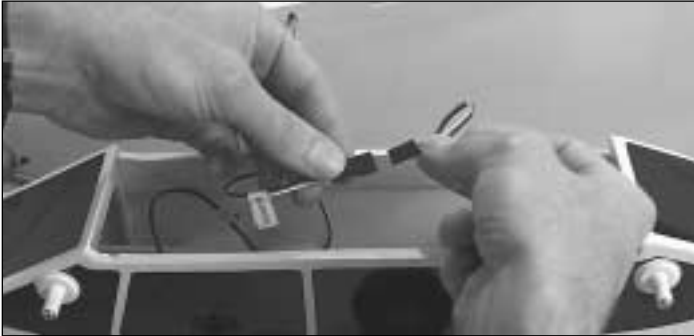
SETUP

Now the plane is assembled, but there are a few things that **must** be done before it will be ready to fly. You must carefully perform **all** of the following **Setup** procedures. If possible, have your flight instructor assist.

If you have not yet charged the batteries, you may still proceed. However, as the batteries have not yet been fully charged, they may not provide enough power to make it all the way through the setup procedures. If the batteries quit working, set your tools aside and charge the batteries as described in the instruction manual for the Tower Hobbies radio control system that came with this kit.

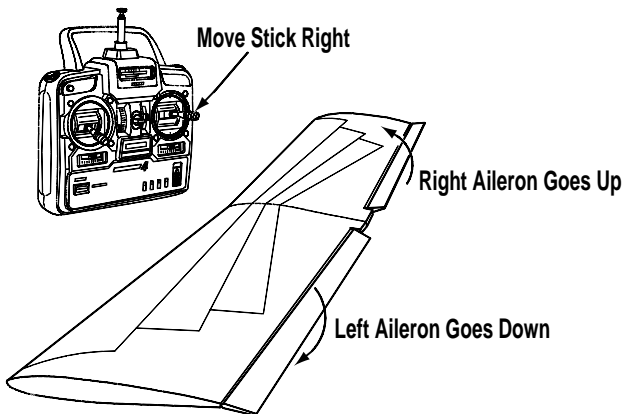
Check the Control Directions

The first thing that has to be done is to make sure all the controls move in the right direction.

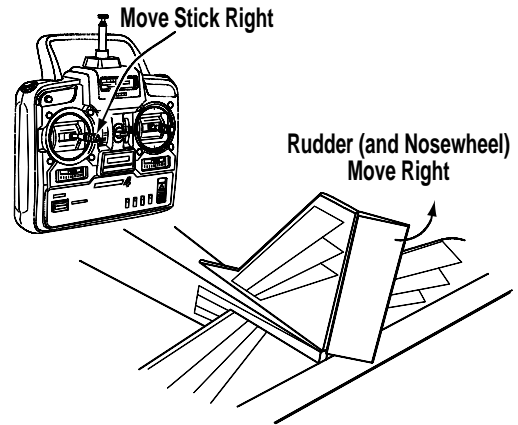
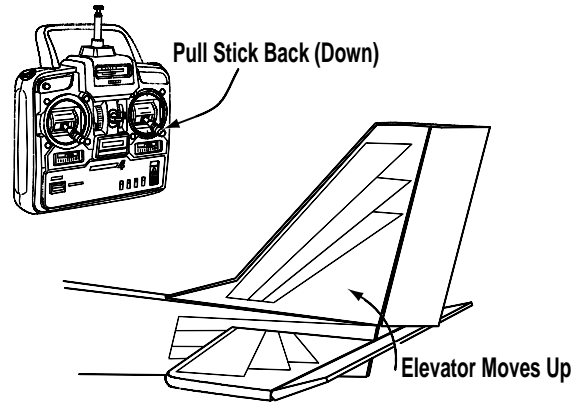


○ 1. Connect the aileron servo wire coming from the wing to the plug labeled "AILERON" coming from the receiver inside the fuselage. Temporarily mount the wing to the fuselage with a couple of #64 rubber bands supplied with this kit.

○ 2. Turn on the transmitter, followed by the receiver. (The idea is to never have the receiver on by itself. When turning off the system, turn off the receiver first, then the transmitter.)



○ 3. Move the right control stick on the transmitter to the **right** as shown in the diagram. Observe the direction the ailerons move. The right aileron should move **up** and the left aileron should move **down**. Moving the control stick to the left should make the ailerons move the opposite way. If the ailerons do not respond as described, reverse the direction using the **reversing switch** for the aileron on the transmitter. If necessary, refer to the instructions in the Tower Hobbies instruction manual to identify and operate the reversing switch.



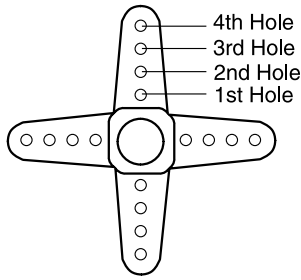
○ 4. Move the right stick down and observe the direction the elevator moves. Moving the right stick down should make the elevator move **up**. Move the left stick to the right and observe the rudder. Moving the stick to the right should make the rudder (and the nose wheel) move to the right. Move the left stick down and make sure the carburetor closes. If necessary, use the reversing switches on the transmitter to make the elevator, rudder and throttle respond in the correct direction.

Note that pulling the elevator stick back moves the elevator up (which, in flight, pushes the tail down, thus increasing the angle of the wing, thereby making the model climb). The best way to keep this in mind is to think in terms of a pilot in an airplane. He pulls the control stick back to "pull up" the nose of the plane.

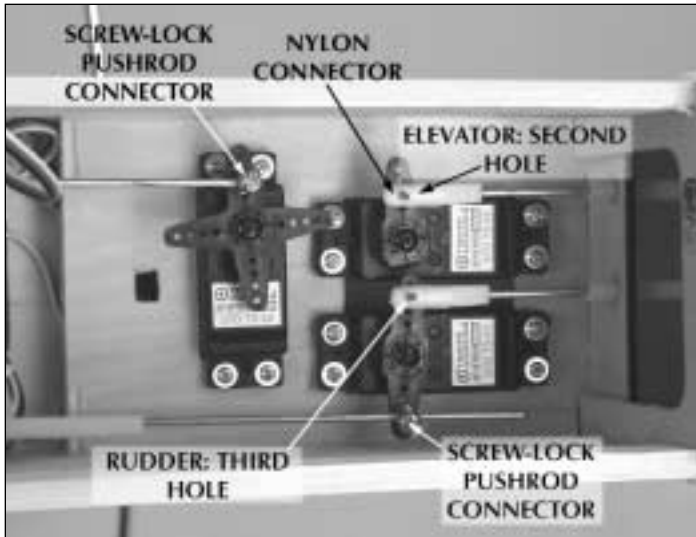
Set the Control Throws

The next thing that has to be done is to make sure the controls move the correct amount.

The control throws are a measure of how far the flight controls (ailerons, elevator and rudder) move. If the controls move too much, the plane will respond too quickly and be difficult to control. If the controls do not move enough, it may not be possible to recover the plane from adverse situations or to flare for landing. Due to the **great** effect the control throws have on the way a model flies, the control throws **must** be checked.



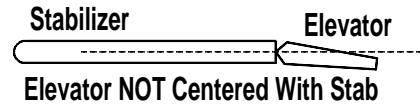
Servo Arm



○ 1. Make certain the pushrods are connected to the servo arms as follows: The **elevator** pushrod should be in the **second** hole out on the servo arm, the **rudder** pushrod should be in the **third** hole out on the servo arm, and the **aileron** pushrods should be in the **second** hole out on the servo arm. If the pushrods are not connected to the servo arms as described, remove the **nylon connector**, insert the pushrod in the correct hole, then reinstall the nylon connector.

○ 2. Turn on the transmitter and receiver. Center all the trim levers on the transmitter.

We'll do the elevator first...

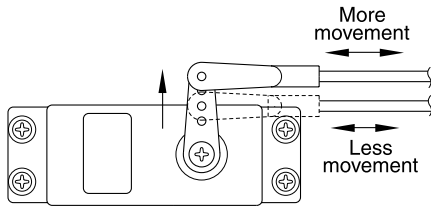


○ 3. View the elevator and stab from the end. The elevator should be centered as shown in the sketch at the top. If the elevator is not centered with the stab (as shown in the bottom sketch), disconnect the clevis from the elevator control horn. Holding the end of the pushrod with pliers, thread or unthread the clevis as necessary until the elevator is centered when reconnected to the pushrod.

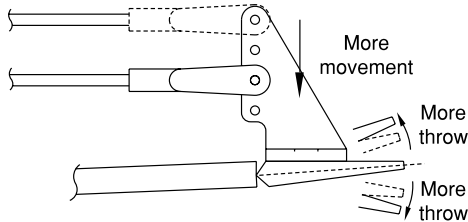


○ 4. Hold a ruler to the trailing edge of the elevator, resting one end on the workbench. Move the elevator all the way up by moving the control stick on the transmitter all the way down. Measure the distance the elevator moves. As shown in the chart on page 8, the elevator should move up $7/16"$ [11mm]. Measure the distance the elevator moves down.

○ 5. If the elevator moves up $7/16"$ [11mm] and down $7/16"$ [11mm] the elevator throw is correct (a variance of $1/16"$ [1.5mm] is acceptable). If the elevator does not move up and down $7/16"$ [11mm], the elevator pushrod must be move to a different hole in either the servo arm and/or the control horn. This will change the geometry and increase or decrease the throw. Refer to the diagram on the following page and relocate the elevator pushrod as necessary to adjust the throw so the elevator will move up and down $7/16"$ [11mm].



Moving the clevis outward on the servo arm results in more pushrod movement, and more control throw.



Moving the clevis inward on the control horn results in more throw.

To get the controls to move farther (*increase* the throw), connect the pushrod to a hole **farther in** on the control horn, or connect the pushrod to a hole farther out on the servo arm. To get the controls to move less (*decrease* the throw), connect the pushrod the opposite as described above.

○ 6. Center the rudder and ailerons by adjusting the clevises on the pushrods as necessary. Measure the rudder and aileron throws the same as was done with the elevator. Refer to the **Control Throws Chart** below for the correct measurements. If any of the throws are not correct, the throws must be adjusted by moving the pushrod to a different hole in either the servo arm or the control horn as previously described.

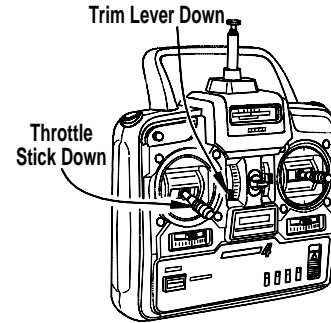
CONTROL THROWS CHART		
AILERONS:	5/16" [8mm] up	5/16" [8mm] down
ELEVATOR:	7/16" [11mm] up	7/16" [11mm] down
RUDDER:	1" [25mm] right	1" [25mm] left

○ 7. If necessary, center the nose wheel by loosening the screw in the **screw-lock pushrod connector** on the rudder servo arm. Move the pushrod forward or back to center the wheel. **Securely** tighten the screw.

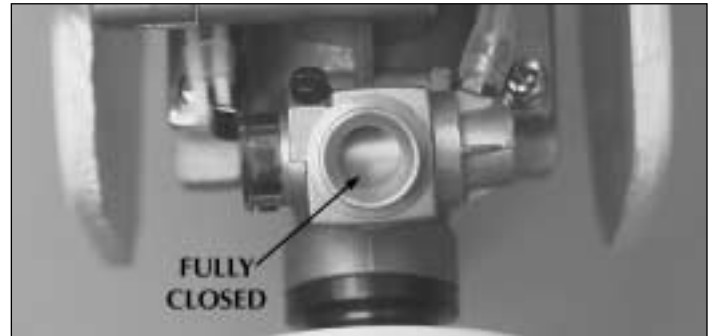
Adjust the Throttle

The throttle is to be set up so that when the throttle stick is all the way down, and the throttle trim lever is all the way **up**, the carburetor will be *nearly*, but not fully closed and the engine will idle at a low RPM. This will keep the engine running when the throttle stick is pulled all the way down (toward you) for landing. When it is time to shut the engine off after landing, move the trim lever down to close the carburetor the rest of the way.

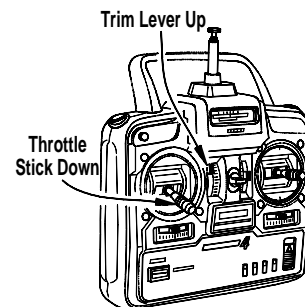
Here's how to set up the carburetor...



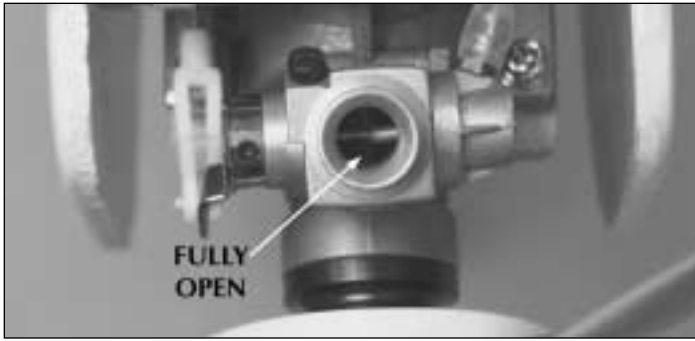
○ 1. With the transmitter and receiver on, move the throttle trim lever and the throttle stick all the way **down**.



○ 2. Observe the opening in the carburetor. If the carburetor is fully closed, proceed to step 3. If the carburetor is nearly, but not fully closed, loosen the screw on the screw-lock connector on the throttle servo arm and move the pushrod back until the carburetor is closed. Securely tighten the screw.



○ 3. Move the throttle trim lever all the way up, but leave the throttle stick all the way down. Now the carburetor should be partially open (about 1/32" to 1/16" [1 to 1.5mm]).



○ 4. Move the throttle stick all the way up. The carburetor should be fully open.

○ 5. If you are not able to achieve these settings, more or less movement may be required from the throttle pushrod. The same as the control surface throws, this is done by relocating the clevis on the carburetor arm to the other hole, or by relocating the pushrod connector on the servo arm to another hole.

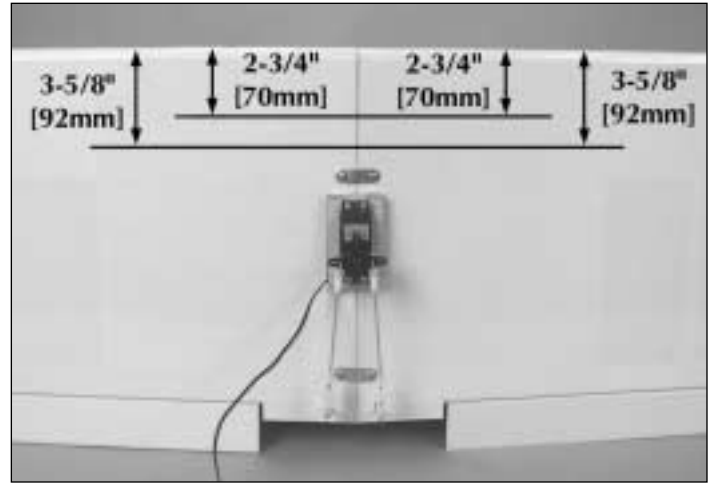
Identify Your Model

Whether you fly at an R/C club or somewhere on your own, you should have your **name, telephone number, address and AMA number** on or in your model so it can be identified and returned in case it lands somewhere away from the flying site. Fill out the I.D. tag found in the back of the manual and use spray adhesive or tape to stick it in the model.

Balance the Model

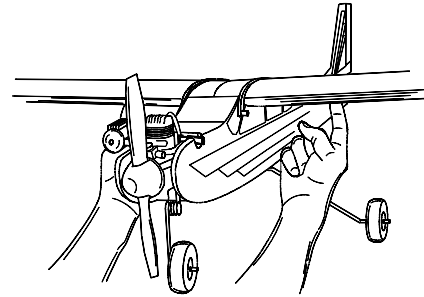


This **important** step is also referred to as “checking the C.G.” (center of gravity). Simply stated, the **center of gravity** is the point at which the model balances when lifted under the wing. If the C.G. is too far forward, the model will be “nose-heavy” and could be difficult to takeoff and land and lose some of its self-correcting tendencies. If the C.G. is too far aft, the model will be “tail-heavy” and the controls may be too sensitive, making the model too difficult to control—especially for an inexperienced pilot! **DO NOT DISREGARD THIS STEP!** Follow the instructions to balance the model correctly, thus giving you the greatest chances for success!



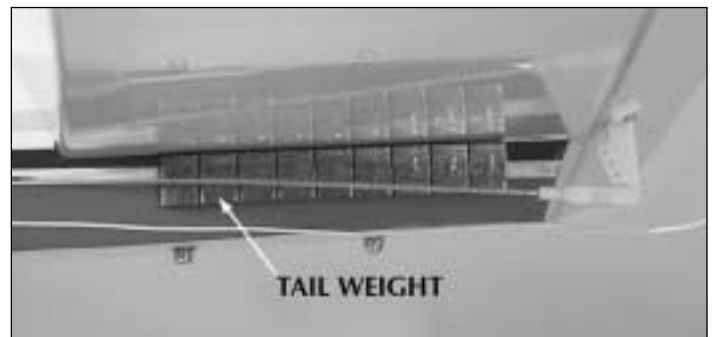
○ 1. Use narrow tape or a felt-tip pen to mark two lines on the bottom of the wing where shown in the photo.

○ 2. Make certain the model is in “ready-to-fly” condition with all components mounted and installed (propeller, spinner, landing gear, etc.). The fuel tank must be empty.



○ 3. Mount the wing to the fuselage with four rubber bands. Lift the model on both sides of the fuselage with your fingertips between the lines on the bottom of the wing.

○ 4. Position your fingers anywhere between the lines until you can get the fuselage level. If the tail remains low even when your fingers are on the aft line, the model is tail-heavy and will require weight on the nose to get it to balance. If, however, the nose of the model remains low even when your fingers are on the forward line, the model is nose-heavy and will require weight on the tail to get it to balance. “Out of the box” the model should balance with your fingers between the lines, but they will probably be nearer the front line. This is okay as long as you can get the model to balance with your fingers anywhere between the lines.



If additional weight is required to balance the plane, purchase **Great Planes Self Adhesive Lead Weights** (GPMQ4485). The weight is

segmented in 1/4 oz. increments and is easy to work with. If adding weight to the tail, attach it to the **left** side of the fuselage (opposite the muffler) under the stab. If adding weight to the nose, attach it to the inside of the fuselage next to the engine.

○ 5. If you found it necessary to add weight, recheck the C.G. after doing so.

Note: Once you have mastered flying the Tower Trainer .40 Ready-to-Fly, you may experiment by moving the C.G. forward or aft, as long as it remains between the lines. Moving the C.G. forward (adding weight to the nose) will improve the model's stability, but may make it a little more difficult to flare for landing. Moving the C.G. aft (adding weight to the tail) will increase the model's maneuverability, but could also make it too sensitive for beginners to control. **Never** move the C.G. outside the lines.

Ten-Point Check List

Now it's time to do a final check before taking the model to the field. These checks are best done in the peace and comfort of your own shop, so take the time now to make certain your model is ready.

- 1. Check to see that the screws on the wheel collars that hold on the wheels are fully tightened.
- 2. Be certain the silicone retainers on all the nylon clevises are in position.
- 3. Make certain the elevator, rudder and ailerons respond in the correct directions.
- 4. Make certain the wing is securely joined with the metal straps.
- 5. Check to see that the nuts that hold the fin and stab in position are present and secure.
- 6. Inspect the rubber bands that hold the wing on and make sure they are in good condition.
- 7. Make certain the propeller and propeller spinner are secure.
- 8. Make certain you have balanced the model according to the instructions.
- 9. Check to see that the screws that hold the servo arms to the servos are present and secure.
- 10. Make certain you have filled out the I.D. card and placed it inside the model.

Charge the Batteries

If you haven't already done so, refer to the Tower Hobbies instruction manual for the radio control system and charge the batteries in the plane and in the transmitter overnight the night before you go flying.

Gather Your Tools

In addition the equipment required to fuel and start the engine mentioned near the beginning of the manual, you should start a collection of tools that may be required for adjustments and maintenance at the flying field. Following is a list of the most important items.

Tools:

- Medium (#1) Phillips screwdriver
- Large (#2) Phillips screwdriver
- 5/16" (or 8mm) Socket wrench (for glow plug)

- 7/16" or 11mm Wrench or crescent wrench (for propeller nut)
- Pliers
- Hobby knife

Spare Parts:

- 10 x 6 propellers
- Glow plug
- #64 rubber bands (stored in container with talcum powder or kitty litter)

FLIGHT PREPARATION

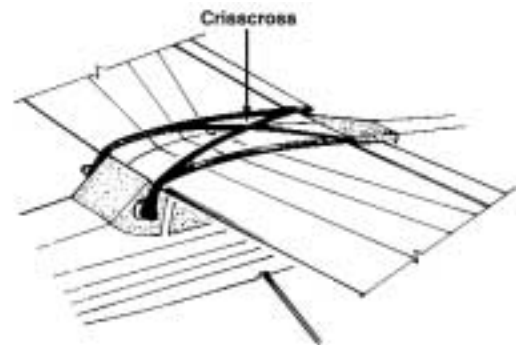
Flight preparation is to be done at the flying field.

IMPORTANT: Your radio control system transmits a signal on a certain frequency. Be certain you know what the frequency is. This is expressed as a two-digit number (42, 56, etc.), and can be found on the container the transmitter came in and is also located on the transmitter. There are several different frequencies, but there is still a chance that someone else at the flying field may be on the same frequency as you. If you turn on your transmitter while that person is flying, a crash will result. **NEVER** turn on your transmitter until you have permission from your instructor, and until you have possession of the frequency clip used for frequency control at the flying site.

Be certain your flight instructor performs these following checks with you.

Check the Controls

- 1. Get the frequency clip from the frequency control board at your flying site.



- 2. Mount the wing to the fuselage with the #64 rubber bands supplied with this kit. Ten to twelve rubber bands are suggested. Be certain the final two are "crisscrossed," thus ensuring that the others remain secure.

- 3. Turn on the transmitter and receiver. One at a time, operate each control on the airplane using the sticks on the transmitter. Make certain each control is responding correctly. This **must** be done before **every** flight. There are several types of malfunctions that can be discovered by performing this elementary task, thus saving your model!

Range Check the Radio

A range check **must** be performed before the **first** flight of a new model. It is not necessary to do a range check before every flight (but it is not a bad idea to perform a range check before the first flight of each day). A range check is the final opportunity to reveal any radio malfunctions, and to be certain the system has adequate operational range.

○ 1. Turn on the transmitter and receiver. Leave the transmitter antenna all the way down. Walk away from the model while simultaneously operating the controls. Have an assistant stand by the model and tell you what the controls are doing to confirm that they operate correctly. You should be able to walk approximately 100 feet from the model and still have control without any “glitching” or inadvertent servo operation.

○ 2. If everything operates correctly, return to the model and start the engine. Perform the range check with your assistant holding the plane with the engine running at various speeds. If the servos chatter or move inadvertently, there may be a problem. **Do not** fly the plane! With the assistance of your instructor, look for loose servo connections or binding pushrods. Also be certain you are the only one on your frequency, and that the battery has been fully charged.

FLYING

The following flying instructions are in **no way** an endorsement for learning to fly on your own, but are printed so you can know what to expect and what to concentrate on while learning under the tutelage of your instructor. Further, these flight instructions may be referenced once you begin flying on your own.

IMPORTANT: If you do insist on flying on your own, you **must** be aware of your proximity to R/C club sites. If there is an R/C site within six miles of where you are flying, and if you are operating your model on the same frequency at the same time as somebody else, there is a **strong** possibility that one or both models will crash due to radio interference. There is **great** potential for an out-of-control model to cause property damage and/or severe personal injury. We **strongly** urge you to fly at a R/C club site where frequency control is in effect so you can be assured you will be the only one flying on your channel.

Taxiing

Remember, it is assumed that your instructor is operating the model for you.

Before the model is ready for takeoff, it must first be set up to roll straight down the runway. With the engine running at a low idle, place the plane on the runway and, if your flying field permits, stand behind the model. Advance the throttle just enough to allow the model to roll. If the model does not roll straight down the runway, shut the engine off and adjust the nose gear pushrod as necessary. Do not use the rudder trim to correct the nose wheel because this will also affect the rudder. **Note:** Crosswinds may affect the direction the model rolls, so this test should be done in calm conditions, or with the model facing directly into the wind.

Takeoff

If possible, takeoff **directly into** the wind. If you are experienced, taking off in a crosswind is permissible (and sometimes necessary—depending upon the prevailing wind conditions and runway heading). Taking off into the wind will help the model roll straight and also reduces ground speed for takeoff. Taxi the model onto the runway or have an assistant carry it out and set it down pointing down the runway into the wind. When ready, gradually advance the throttle while simultaneously using the left stick (rudder/nose wheel) to steer the model. Gain as much speed as the runway and flying site will practically allow before gently applying up elevator, lifting the model into the air. Be ready to make immediate corrections with the ailerons to keep the wings level, and be smooth on the elevator stick, allowing the model to establish a gentle climb to a safe altitude before making the first turn (away from yourself). Do not “yank” back the elevator stick, forcing the plane into too steep of a climb which could cause the model to quit flying and stall.

Flight

Once airborne, maintain a steady climb and make the initial turn away from the runway. When at a comfortable, safe altitude, throttle back to slow the model, thus giving you time to think and react. The Tower Trainer should fly well at half or slightly less than half-throttle. Adjust the trims so the plane flies straight and level. After flying around for a while, and while still at a safe altitude with plenty of fuel, practice slow flight and execute practice landing approaches by reducing the throttle further to see how the model handles when coming in to land. Add power to see how the model climbs as well. Continue to fly around while learning how the model responds. Mind your fuel level, but use this first flight to become familiar with the model before landing.

Landing

When ready to land, pull the throttle stick fully back while flying downwind just before making the 180-degree turn toward the runway. Allow the nose of the model to pitch downward to gradually bleed off altitude. Continue to lose altitude, but maintain airspeed by keeping the nose down while turning. Apply up elevator to level the plane when it reaches the end of the runway and is about five to ten feet off the ground. If the model is too far away, carefully add a small amount of power to fly the model closer. If going too fast, smoothly advance the throttle and allow the model to gain airspeed, then apply elevator to climb-out and go around to make another attempt. When finally ready to touch down, continue to apply up elevator, but not so much that the airplane will climb. Continue to apply up elevator while the plane descends until it gently touches down.

After you have landed and shut the engine off, adjust the pushrods on the ailerons, elevator and rudder as necessary so the trim levers on the transmitter may be returned to center (this will not be required on any of the controls that did not need trim adjustments).

Maintenance Tips

- 1. After flying for the day, use your fuel pump to drain excess fuel from the tank.
- 2. Purchase spare #64 rubber bands for the wing (TOWQ1220, 1/4 lb box). **Do not** reuse torn or oily rubber bands. After flying, remove the oily rubber bands from the wing and store them in a container with talcum powder or kitty litter. This will absorb oil and keep the rubber bands fresh for the next flying session.
- 3. After each day's flying, use spray cleaner and paper towels to **thoroughly** clean the model.
- 4. The Tower Hobbies Trainer .40 Ready-to-Fly is factory-covered with iron-on model covering film. Should repairs ever be required, the covering can be patched with new pieces of iron-on covering. Among several types of covering that will work, Top Flite® MonoKote® film may be used to make repair patches to this model. MonoKote is packaged in six-foot rolls, but some hobby shops also sell it by the foot. If only a small piece of covering is needed for a minor patch, perhaps a fellow modeler would give you some. The covering is applied with a model airplane covering iron, but in an emergency a regular iron could be used.

Make a copy of the identification tag shown below and place it on or inside the model.

This model belongs to:

Name

Address

City, State, Zip

Phone number

AMA number

Ordering Replacement Parts

To order replacement parts for the Tower Trainer .40 Ready-to-Fly, use the order numbers in the **Replacement Parts List** that follows. Replacement parts are available only as listed. Not all parts are available separately (an aileron cannot be purchased separately, but is only available with the wing set). Replacement parts are not available from Product Support, but can be purchased from Tower Hobbies. Hardware items (screws, nuts, bolts) are also available from Tower. If this kit is missing parts, contact **Product Support**.

Replacement Parts List

<u>Order Number</u>	<u>Description</u>	<u>How to Purchase</u>
	Missing pieces.....	Contact Product Support
	Instruction manual.....	Contact Product Support
	Plans.....	Not available
TOWA6015	Wing Set	} Contact Tower Hobbies to purchase these items
TOWA6016	Fuselage Set	
TOWA6018	Landing Gear Set	
TOWA6017	Tail Set	

