

**OWNERS MANUAL
FOX 40 SERIES MOTORS**

Revised December 1994



MESSAGE FROM FOX MFG. CO.

We are very proud of this series of motors, and want yours to give you the best possible service. After reading this manual in its entirety, follow it to the best of your ability, and if you have any questions, feel free to call us at Area Code 501-646-1656.

WARNING:

There is always the possibility you may lose control of your model. Do not fly in any location where your model might strike somebody or do property damage.

INSTALLATION:

Mount your motor solidly with a rigid type mount. Flimsy mounting will allow excessive vibration, and may cause damage to the model, and will cause foaming of the fuel tank. Excessive vibration could also cause glow plug failure.

PROPELLERS TO USE:

Always use a hardwood propeller. Nylon propellers flexible nature will cause excessive vibration. For models with 50" wingspan or larger, we recommend using 10-6, and for smaller models use a 9-7.

WARNING:

Always keep clear of the propeller. It is possible to get a finger cut off, or for a piece to come off and put out an eye.

FUELS TO USE:

We recommend use of a fuel with a minimum of 17-20% castor oil, such as Fox Gold Star, Duke's Fuel, or Formula 15. Fuel that does not leave an oily exhaust residue will cost you dearly in excessive motor wear.

WARNING:

Model Airplane fuel is both flammable and extremely poisonous. Use the same safety precautions you would use with a can of gasoline or a bottle of poison.

GLOW PLUGS:

Your Fox 40 uses a long thread plug. Standard long plug without idle bar is recommended for control line use. R/C Long or Miracle Plug is recommended for use with R/C motors. R/C Long Plug has machined on Idle Bar, but the Miracle Plug will retain heat better and give the best idle.

STARTING YOUR MOTOR

Mount motor securely on a mount that does not put a strain on the mounting lugs. Use #4-40 Mounting Screws. Fuel tank centerline and fuel inlet on the carburetor should not be higher or lower than 1/2". Same holds true for routing of fuel tubing. Use medium size fuel tubing (.080 ID).

Carburetor is pre-set at the factory. to fine tune your motor, follow these instructions:

1. Screw High Speed Needle in to bottom (do not force or over-tighten). Then screw needle out two (2) turns for a starting point.
2. To set idle air adjustment screw, screw in until point of screw is midway of air inlet hole. To fine adjust idle, turn screw in to richen and out to lean.
To determine proper setting, find the setting that is too lean and then make a small rich adjustment. You can do this by pinching the fuel line. The motor should rev up. Screw needle valve in a couple of clicks (leaning out the mixture). Repeat this process until motor no longer revs up, THEN BACK THE NEEDLE OUT 3 TO 4 CLICKS. This should give you a good flight setting to let your motor perform as it was designed, unloading to peak performance in the air. When a motor goes lean in the air, it gives poor performance and causes damage to the motor.

WARNING:

A model airplane motor can get hot enough to cause a serious burn. Do not touch the motor right after it has been running.

BREAK IN:

Your Fox motor has a closely fit piston which requires 30 to 60 minutes running before it will idle reliably. During this period especially, take care that the motor is not run over-lean.

WHEN THINGS DO NOT GO SO WELL:

Motor Won't Start:

- Bad Plug
- Fuel Tank Empty
- Fuel Line Collapsed, Leaky, or Off
- Weak or Dead Battery

Motor Won't Keep Running When Glow Plug Heater Removed

- Insufficient Nitro for weather conditions
- Bad Plug - or carboned from inferior fuel use
- Needle Setting too Rich
- Water in Fuel

Motor Quits after a Short Time Running

- Hole in Flopper Tube in Tank
- Carburetor Set Too Lean
- Fuel With All Synthetic Oil

Glow Plug Burns Out Excessively

- Over Voltage - Should Glow Orange, Not White
- Excessive vibration, caused by loose or flexible mounting, unbalanced prop, or plastic propeller flexing.
- Crumpled Glow Plug Element - Caused by cranking with a flooded motor.

IN CASE OF CRASH DO NOT TURN MOTOR OVER:

1. Remove from rest of model.
2. Wash under hot water faucet.
3. Remove plug and rear cover and wash in stoddard solvent.
4. Now check, and if motor turns freely, it probably isn't hurt.

OTHERWISE, PROCEED TO DISASSEMBLE:

Inspect all parts - discard any that appear damaged or worn. New parts can be obtained directly from factory by calling area code 501-646-1656 during business hours. If repairs are more than you want to handle, send motor directly to us. Do not return to source from which purchased. We will disassemble and replace necessary parts, test run and return motor to you charges collect. If you want to avoid COD charges, please send your Visa or Master Card Number and expiration date along with the motor when you send to us. We cannot make any sort of estimate, however, we assure you that charges will never exceed 50 percent of factory list price of a replacement motor.

PART NAME	24095 40 BUSH	24096 40 BB	24098 40 DELUX ABC
Crankcase R/C	24001B 27.00	24001F 25.00	24001F 25.00
Crankcase C/L	14001B 27.00	14001F 25.00	14001F 25.00
Cylinder Head or Clamp	13722A 10.00	13722A 10.00	13722A 10.00
Cylinder Head Button	14243 7.00	14243 7.00	14243 7.00
Cylinder Liner, Piston, Conn Rod, Wrist Pin and Keeper (Sets only)	24080 26.00	24080 26.00	24005 45.00
Crankshaft	13908 20.00	14008 20.00	14008 20.00
Crankshaft Stud	13918 3.00	13918 3.00	13918 3.00
Thrust Washer (In back of prop)	13909 8.00	26009 8.00	26009 8.00
Thrust Washer Taper Lock	.	26005 4.00	26005 4.00
Rear Cover	13731A 10.00	13731A 10.00	13731A 10.00
Prop Nut (Pkg 2)	13512 2.00	13512 2.00	13512 2.00
Prop Washer (In front of prop)	13513 3.00	13513 3.00	13513 3.00
Screw & Gasket Set	13734 3.00	13734 3.00	13734 3.00
Rear Bearing		13842 15.00	13842 15.00
Front Bearing		26043 12.00	26043 12.00
Muffler (Normally supplied) Downtilt	90237 18.95	90237 18.95	90237 18.95
Muffler Uptilt	90236 18.95	90236 18.95	90236 18.95
Quiet Muffler Downtilt (Optional)	90345 47.95	90345 47.95	90345 47.95
Quiet Muffler Uptilt (Optional)	90346 47.95	90346 47.95	90346 47.95

E-Z CARBURETOR PARTS			
Throttle Barrel & Casting (matched)	24059 22.00	24059 22.00	24059 22.00
Air Adjustment Screw and Spring	23662-A 3.00	23662-A 3.00	23662-A 3.00
High Speed Needle	27064 2.50	27064 2.50	27064 2.50
Servo Attaching Screw and Washer	27065 2.50	27065 2.50	27065 2.50
Servo Arm	24066 3.00	24066 3.00	24066 3.00
Friction Clip (2)	24067 3.00	24067 3.00	24067 3.00
#6-40 Knurled Nut	27070 2.50	27070 2.50	27070 2.50
Carburetor Jet with Fuel Nipple	24171 16.00	24171 16.00	24171 16.00
Cam Screw	22072 3.00	22072 3.00	22072 3.00
Fuel Nipple	90503 3.00	90503 3.00	90503 3.00
Jet Mounting Screws (2 in pkg.)	27074 2.50	27074 2.50	27074 2.50
Carb Mounting Screws and Gasket	23975 2.50	23975 2.50	23975 2.50
E-Z Single Needle Carburetor (Complete)	24050 30.00	24050 30.00	24050 30.00

**GOOD LUCK AND ENJOY YOUR FOX MOTOR
IT IS ONE OF THE FINEST MOTORS BUILT ANYWHERE,
AND OUR SERVICE IS SECOND TO NONE.**

FOX MANUFACTURING COMPANY

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