

# FUTABA

4/5CHANNEL-DIGITAL

PROPORTIONAL

**MANNUAL**

- \* Modern, Light weight, easy to hold transmitter
- \* Transmitter case designed so that control sticks are in a convenient operating position.
- \* Antenna is angled for more effective radiation pattern.
- \* Built-in transformer type battery charger.
- \* Control stick knobs supplied in two length.
- \* Maximum transformer output for positive control.
- \* Receiver has automatic gain control (AGC) circuit for maximum noise suppression.
- \* Compact, light weight receiver and servos.
- \* Total airborne weight is 15oz.
- \* Transmitter has an output meter.
- \* Nickel cadmium batteries supplied.
- \* Linear action servos.

## SPECIFICATION FOR FUTABA

### 4/5 CHANNEL DIGITAL PROPORTIONAL RADIOS

#### •TRANSMITTER: T4 or T5

Size: 71/7" x 6" x 23/4" (exclusive of antenna)

Weight: 31lbs including batteries

Voltage: 9.6 volt DC

Pulse width: 1.5 ms neutral varied 1ms for full control.

#### •RECEIVER:

Size: 2.340" x 0.835" x 1.580"

Weight: 1.5 oz.

Voltage: 4.8 volts DC

#### •SERVOS: S2

Size: 2.250" x 1.50 x 0.830"

Weight: 1.84 oz.

Voltage: 4.8 volt DC

Travel time: 0.6 second end to end.

Thrust: 41 lbs

#### •COMPLETE AIRBORNE SYSTEM:

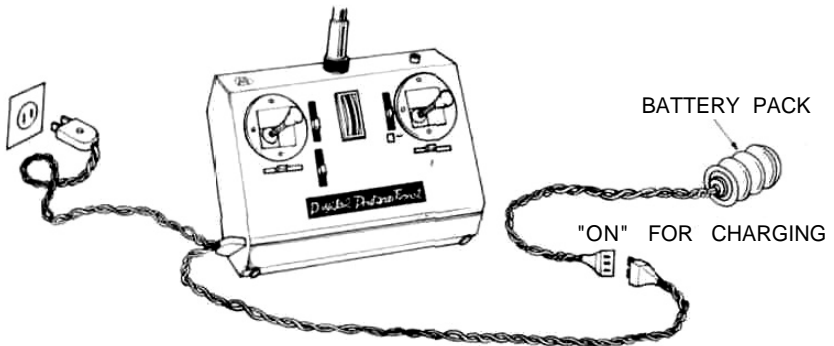
Consist of receiver, 4 servos and battery pack including switch and harness.

Weight: 15 oz with 500 MAH Nickel Cadmium battery supplied.

Voltage: 4.8 volts DC.

## BATTERIES:

Before initial hook-up and operational check, transmitter and receiver batteries should be charged for 24 hours.



## CHARGING INSTRUCTIONS:

Your transmitter contains a built-in transformer type nickel cadmium battery charger. A dual charging cord is packed with your radio control system. If you will examine, the charging cord, you will note that it is fitted with a standard 110 volt 2 prong line cord plug, a seven pin male and a four pin female connector. The line cord plug connects to any 110-117 volt AC. household outlet. The seven pin male plug connects to the receiver battery pack. The female connector located on the lower left-hand side on the transmitter case.

Before connecting the charging cord, turn the transmitter switch off and turn the receiver switch to the on position, (if your switch aren't in the proper position, your system won't charge.) Next, plug the 4 socket connector to the transmitter and then the 7 pin plug into the receiver battery pack. Then you plug the line cord plug into 110 volts AC household outlet. Check the charging indicator light located at the top right hand side of the transmitter, when this light is on, it indicates that both batteries are being properly charged 18 to 24 hours is sufficient for 100% charge and this will operates your system for 3 hours.

TRANSMITTER:

LOCATED ON FRONT PANEL:

Two control sticks-4 trim levers-one lever for auxiliary (5th) channel operation-output meter.

TOP PANEL:

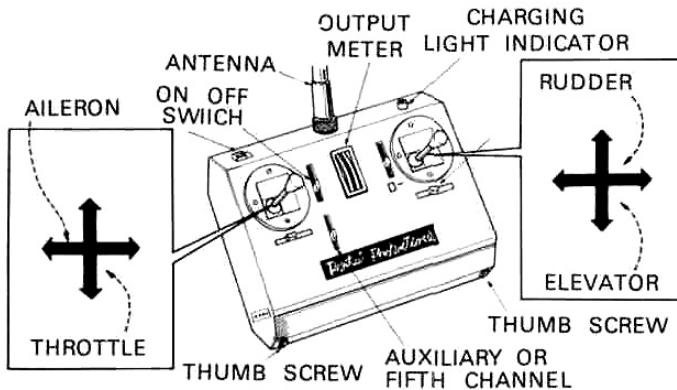
On-off switch-Antenna mount-Charging light indicator.

BOTTOM PANEL:

Two thumb screws. Removing these screws allows access to battery compartment,

SIDE PANNEL:

Left side contains battery charging connectors.



THE CONTROLS PROVIDE THE FOLLOWING FUNCTIONS:

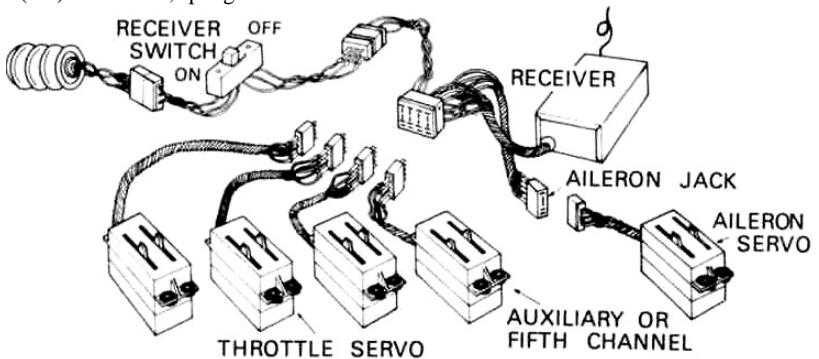
The left hand control stick operate throttle and aileron. To the right of this stick is a trim lever which controls the idle position of the throttle servo. Directly below the stick is the trim lever for aileron. The right hand control stick operates rudder and elevator. The trim lever located to the left of this stick control the neutral position of the servo which is activated by moving the stick vertically. The trim lever located directly below the right control stick is used to control the neutral position of the servo that is activated by moving the stick horizontally. The auxiliary or 5th channel is controlled by the lever located Just below and to the left of the output meter. See diagram above. Each of the four main controls is trimmable by the four trim le-

vers. The auxiliary or 5 channel is not independently trimmable. Two sets of control stick knob of different lengths are supplied with this system, since individual preferences for control stick length may vary. Stick knob may be interchanged by merely pulling the knob directly away from the stick. The replacement knob should be pushed onto the stick until it is fixed.

## RECEIVER:

This receiver has been factory tuned and adjusted to the transmitter, no further adjustments are required and the receiver should not be tampered with. Attach to the receiver is the antenna, one 7pin plug and 2 jacks. The seven pin plug connects the receiver battery pack and supplies power to the receiver and servos. The multi connectors jack is for the rudder, throttle, elevator and auxiliary the aileron servo. See diagram below.

Note: Receiver connector has a white dot on one end. For auxiliary (5th) channel, plug servo into this end of connector.



## OPERATION CHECK:

1. Connect servo plugs to receiver jack, next connect receiver to battery pack.
2. Collapse transmitter antenna and turn the switch on. Next turn the receiver switch on. All servos should stop at the neutral position.
3. Make sure that each of the servos operates correctly and responds to the individual stick and trim lever. This test should be performed at least 20 yards from the receiver. Don't test for longer than 5 minutes. Futaba FP-T4 and FP-T5 are very high put type transmitters.

The receiver should be loosely mounted in foam rubber or foam plastic to protect against vibration and shock. Battery pack should also be protected from vibration by wrapping in foam rubber. The receiver should also be protected from fuel by wrapping it in a plastic bag. The receiver antenna must be kept as far as possible from other wiring and metal parts. Excessive electrical noise is generated by metal to metal connections and may seriously interfere with receiver reception. Such metal to metal contacts, such as throttle linkage, should be made with nylon devices. This receiver has one of the most noise resistive circuits on the market but care should be taken to keep electrical noise at a minimum.

### **PRE-FLIGHT CHECK:**

The final check of the system should be performed with the engine running at a distance of 20—30 yards with transmitter antenna retracted. If the distance is substantially less than with engine not running, you can be sure something in your installation is causing interference from excessive vibration.

When all the above test are concluded satisfactorily you are ready for your first flight. If you have no previous experience with proportional equipment, an experienced flyer should be enlisted to perform the initial flying and trimming of the craft.

## REPAIR SERVICE

To insure prompt service, please follow the instructions listed below. The gears for repairing should be sent back to the distributor or local dealer.

1. Charge batteries for at least 18 hours prior to the despatch.
2. Return only the system, separate from your installation. Remove servos from mounts, remove foam padding from receiver.
3. Plugs or other modifications which interfere with factory testing procedures will be returned to factory standards at your expense.
4. Carefully pack all components individually with sufficient packing material to prevent shipping damage. Warranty does not cover any components damaged in transit. Also, for your own protection, insure all packages.
5. Include a brief but thorough explanation of all problems and service required and tape to back of transmitter. Label servos as to their function.
6. Be sure to include your full address inside the box as well as outside.
7. Include a packing list of all items being returned and double check to make sure all items are packed for return.



your dealer