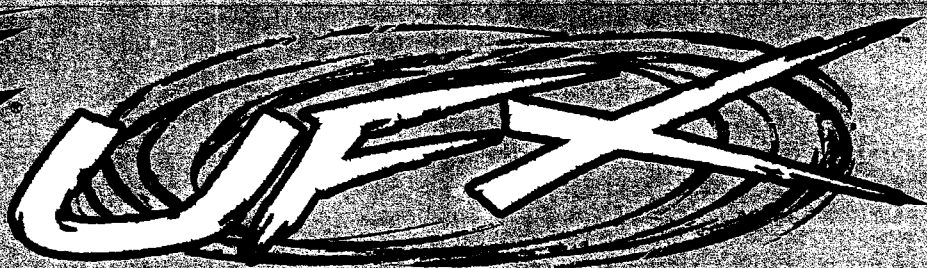


TAIYO EDGE R/C



Taiyo Edge® R/C Consumer Service
We want to assist you!

DO NOT RETURN THE PRODUCT TO THE STORE!

Log on: Click "Service" at www.taiyoedge.com

E-mail: help@taiyoedge.com

TOLL-FREE CONSUMER HELPLINE

1-866-4-EDGE-RC (1-866-433-4372)

12+

OWNER'S MANUAL

Important! Please read your UFX™ Owner's Manual all the way through before operating your vehicle. Contains important information—keep for future reference. **ASSEMBLY REQUIRED.**

Safety First — Adult Supervision Recommended

- Fly your UFX in a safe area away from obstacles or structures that might damage UFX or create an unsafe condition.
- Not indoors, not in streets, not in the dark, not in high winds or bad weather, not under overhead wires, trees or buildings, or near water!
- Choose a large, flat, wide-open grassy area free of obstacles, including pets, cars, poles, fences and other people.
- Operate on clear, warm or cool days, not under 50° or over 110° F, not in rain, snow, sleet, thunder or lightning.
- Don't touch or try to pick up vehicle when it is in motion. Wait until vehicle and propellers stop completely.
- Keep hair, fingers, face and loose clothing away from propellers while the vehicle is switched on or while the transmitter is operating.
- Keep power switch on UFX Hub in "CHARGE" position until ready to fly. Do not push the transmitter joystick while the power switch on UFX is being turned on. Always turn power switch on UFX to "CHARGE" position immediately after landing, as soon as propellers stop spinning.
- Follow the charging instructions provided in this manual. Use only the included field charger to charge UFX.
- Be a responsible UFX operator!

Batteries Required (not included)

One 9-Volt Alkaline Battery required for Transmitter. Charger can be powered by your car's 12V accessory power outlet using included car-charge adapter. (Adult supervision of use of car adapter required.) Or, use 8 "D" Alkaline Cells (optional, not included) for Charger.

Battery Cautions -- CAUTION: TO AVOID BATTERY LEAKAGE

1. Make sure the batteries are inserted correctly and follow the toy and battery manufacturer's instructions.
2. Do not mix old and new batteries.
3. Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium, nickel-metal hydride, rechargeable alkaline) batteries.
4. Remove weak or dead batteries from product. Remove all batteries from charger and transmitter when not in use.

More Important Battery Information

- Start with all new batteries and always replace ALL 8 vehicle batteries at the same time.
- Make sure battery polarity (direction) is correct.
- Use only battery type(s) recommended.
- Remove batteries from the product if it will not be used for a long period of time.
- Battery life may vary with the brand used.
- Do not recharge non-rechargeable batteries.
- Remove rechargeable batteries from the product before charging. Recharge batteries only under adult supervision and follow the battery and charger manufacturers' instructions.
- Do not short-circuit battery terminals.
- Keep vehicle and transmitter dry. If they get wet, immediately turn off power switch and remove batteries, wipe off excess moisture, and allow to air dry for at least 24 hours.
- Dispose of batteries safely and properly.

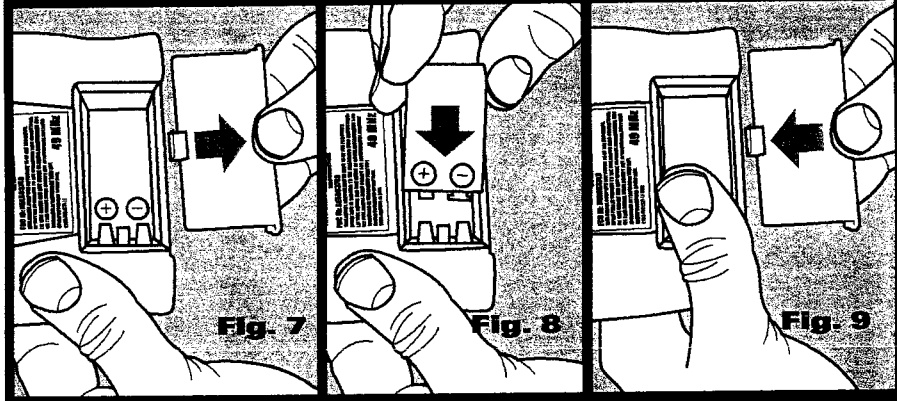
IMPORTANT! FIRST FLIGHT ONLY

**You must wait
40 minutes
after first use
before first
recharge, or
damage to UFX
may result and
void your
warranty!**

See p. 3-4

Transmitter Battery

1. Slide open BATTERY DOOR on back of TRANSMITTER (Fig. 7).
 2. Insert a fresh, new 9-VOLT ALKALINE BATTERY with the polarity (+/-) as shown on bottom of battery compartment (Fig 8).
- IMPORTANT: OBSERVE BATTERY POLARITY (DIRECTION, + AND -)**
3. Hold battery in place with thumb and slide battery door all the way closed. (Fig. 9).



Assemble Charger Base

1. Press POSTS on bottom of LAUNCHER CONE into HOLES on top of CHARGER BASE. (Fig. 10)

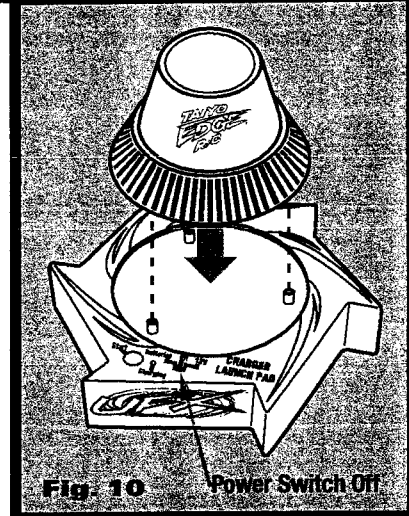
CHARGING INSTRUCTIONS

2 Ways to Power the Field Charger

- (1) CHARGER USES CURRENT FROM YOUR CAR'S 12V ACCESSORY POWER OUTLET VIA INCLUDED CAR-CHARGE ADAPTER CORD, OR
- (2) YOU CAN INSTALL 8 "D" CELL ALKALINE BATTERIES IN CHARGER BASE.

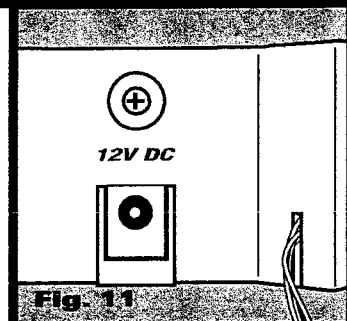
Using Power From Your Car -- Adult Supervision Required

1. Make sure POWER SWITCH on BASE is in "OFF" POSITION.
 2. Insert PLUG on one end of CAR ADAPTER CORD into 12V POWER JACK on CHARGER BASE. Plug other end into 12VDC accessory power outlet in your car. (Fig. 11)
- NOTE: REMOVE CAR POWER ADAPTER FROM CAR POWER OUTLET WHEN NOT IN USE. MOVE AWAY FROM CAR BEFORE LAUNCHING UFX™.**
3. Carefully follow charging procedure (see below).



Using Alkaline Batteries

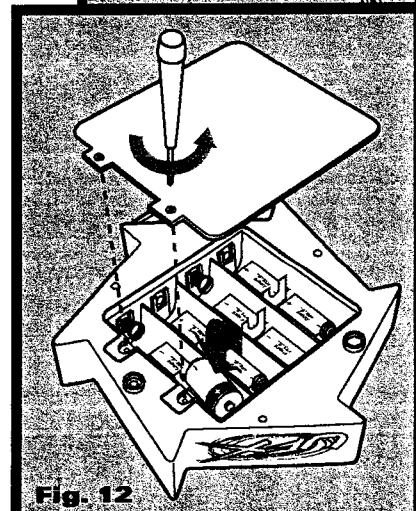
1. Use small Philips screwdriver to loosen SCREWS on BATTERY DOOR on bottom of BASE. Remove DOOR. (Fig. 12)
 2. Insert 8 FRESH, NEW "D" CELL ALKALINE BATTERIES in the directions shown on the bottom of the battery compartment.
- IMPORTANT: OBSERVE BATTERY POLARITY (DIRECTION, + AND -)**
3. Replace DOOR and SCREWS. Do not overtighten SCREWS.



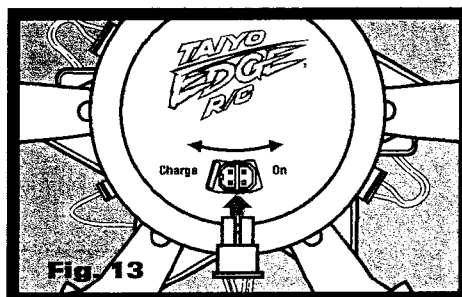
Charging UFX for Flight

NOTE: READ CAREFULLY—FIRST CHARGE IS DIFFERENT THAN OTHER CHARGES! FOR FIRST CHARGE ONLY, YOU MUST CHARGE TWICE! AFTER THIS, CHARGE ONLY ONCE.

1. Make sure POWER SWITCH on UFX is in "CHARGE" position (Fig. 13), and POWER SWITCH on BASE is in "OFF" POSITION. (Fig. 10)
 2. Place cone BASE of UFX into LAUNCHER CONE on CHARGER BASE.
 3. Insert CHARGER PLUG of BASE into CHARGER SOCKET on UFX HUB. (Fig. 13)
 4. Move CHARGER BASE POWER SWITCH to (1) "12V" position for Car Charger or (2) "Batteries" position for Alkalines.
 5. Push "CHARGE" BUTTON on BASE ONCE. LED indicator will turn GREEN and remain GREEN until charge is completed – approx. 10 to 15 minutes. (Charging time depends on battery condition, temperature and other factors.)
 6. When GREEN LED goes out, UFX is charged. (First charge only: Press Charge Button again.) When charging is complete, unplug CHARGER PLUG. (Fig. 13)
 7. After first double charge, fly immediately. After first flight (only), you must wait a full 40 minutes until UFX's internal battery is completely cool before attempting to recharge. For subsequent charges, you only need to wait 10-15 mins.
- IMPORTANT: COOL-DOWN TIME OF 10-15 MINS. BETWEEN LATER FLIGHTS IS REQUIRED. CHARGER WILL NOT OPERATE ON A HOT UFX BATTERY TO PROTECT THE BATTERY FROM DAMAGE CAUSED BY HOT RECHARGING.**



IMPORTANT!
FIRST CHARGE ONLY
You must charge **TWICE**.
Press "Start" button **AGAIN**
when Charging Light goes
off. **FLY UFX IMMEDIATELY**
AFTER SECOND CHARGE!
All later charges: charge
only once!



IMPORTANT!
AFTER FIRST FLIGHT ONLY
You must wait 40 minutes
before attempting to
recharge or damage to
battery may result and void
your warranty!

Charging Facts and Tips

1. Always charge UFX completely and immediately before flight.
2. It is not necessary to remove the "D" cell batteries from Charger Base when using CAR ADAPTER power.
3. When using "12V" position, if GREEN LED charging indicator does not light, recheck connections and refer to car's owner's manual to see if ignition key needs to be in "Accessory" or other position to turn on power outlet.
4. UFX POWER HUB has an automatic battery temperature sensing system. Between flights, you should allow a 10–15 minute "cool-down" period before attempting to recharge UFX (40 min. after first charge only). If your battery is too hot to charge correctly (as it may be right after a full flight), the "GREEN" LED indicator will not remain lit after you press the "CHARGE" button and UFX will not charge. When this happens, simply wait another 5 to 10 minutes before attempting to charge.
5. Field Charger will provide approx. 15 to 20 complete charges with a fresh set of 8 "D" cell alkaline batteries. If GREEN LED indicator does not remain lit after pressing the CHARGE button, or lights dimly, it's time to install new batteries in Field Charger.

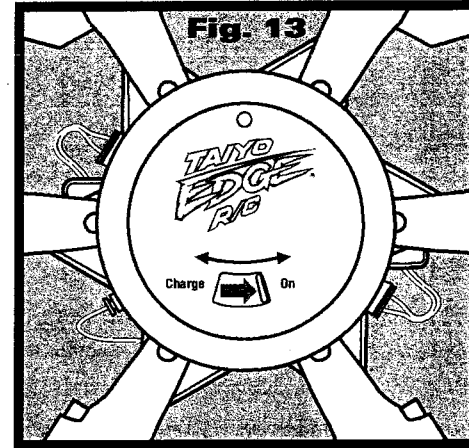
Flying Your UFX

READ AND FOLLOW ALL SAFETY CAUTIONS AND INSTRUCTIONS ON THE FIRST PAGE OF THIS MANUAL. DISREGARD OF CAUTIONS AND INSTRUCTIONS MAY RESULT IN INJURY, DAMAGE TO PROPERTY, OR DAMAGE TO UFX THAT IS NOT COVERED BY WARRANTY.

Always use Field Charger Base as launching platform for your UFX. While UFX can take off from any flat, smooth surface, it will not take off from grass, weeds, or uneven surfaces. Always use Field Charger to launch UFX from any surface to avoid damaging UFX wingtips or propellers.

Preflight Check

1. Make sure CHARGER PLUG of BASE is disconnected from UFX and wire is out of the way.
2. Check each of 6 wings to be sure they are locked properly into place. Check 2 motor plugs and antenna plugs to make sure they are plugged in all the way.
3. Turn POWER SWITCH on UFX to "ON" position. (Fig. 13)
4. Stand well back, about 15 feet, from UFX before launching, and recheck area to make sure it is clear of other people, animals, trees, buildings, overhead wires, and other obstructions.



Transmitter Control of Flight

You command UFX to TAKE OFF, CLIMB, DESCEND, and HOVER by simple move-ments of the transmitter joystick.

Note: Do not touch Transmitter antenna during use.

TAKEOFF: Push JOYSTICK "UP" (red POWER LED on Transmitter will light) to send maximum power to propellers. UFX will begin to rotate and launch into the air.

CLIMB: Hold JOYSTICK in "UP" position and UFX will to climb to altitudes of approx. 100 feet or more (depending on flying conditions).

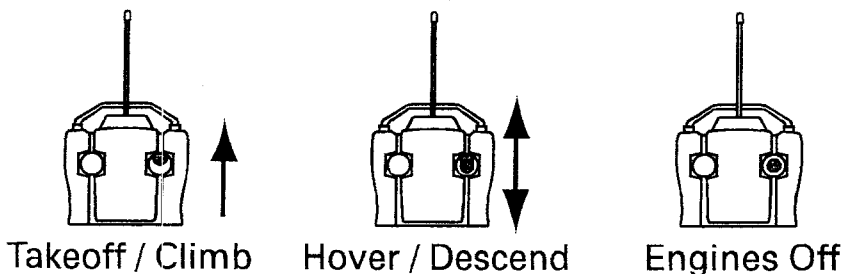
NOTE: Limit the altitude during your first few flights to 20 or 30 feet until you have mastered flying UFX and so you can come down quickly if UFX begins to drift where you do not want it to go. Time your flights to land before UFX loses battery power (approx. 2 minutes). Watch for different wind speeds and directions as you climb, and descend quickly if your UFX begins to drift where it is not safe to fly.

DESCEND/HOVER: "Pulse" the joystick (push up and release, push up and release, rapidly and repeatedly) to reduce power to the propellers. This will slow UFX's rotation speed for hovering in place or a controlled descent.

Practice faster and slower pulsing while flying at lower altitudes to learn how UFX responds to your commands to hover and descend.

IMPORTANT: You must maintain UFX rotation speed to descend safely. Never stop power completely for long enough for UFX to rotate too slowly or stop. This may cause loss of control and a crash landing, which can seriously damage your UFX.

LAND: Slow your descent as UFX gets nearer to the ground. When it reaches a height of 1-2 feet above the ground, **ENGINES OFF** (release joystick) for a gentle touchdown to prevent damage to wingtips and propellers.



IMPORTANT!
FIRST FLIGHT ONLY
You must wait 40 minutes
before attempting to recharge
or damage to battery may
result and void your warranty!

Transmitter Control of Flight (con't.)

After landing, always wait for the propellers to stop completely before handling UFX. Always turn the power switch on UFX to the OFF position as soon as the propellers stop.

Be sure to descend quickly if your UFX begins to drift into areas that are not safe for flying.

Like hot air ballooning or gliding, flights should be planned so that UFX can travel downwind before landing safely inside the safe, open flying area. (UFX's horizontal travel cannot be controlled.)

UFX will climb more slowly or descend, even with joystick in the "UP" position, if battery is at the end of its charge. Keep running time (approx. 2 mins.) in mind as you fly and reduce altitude if you think the battery is starting to weaken. Note: Rechargeable batteries are not like alkaline batteries. They run out of power quickly and without much advance notice.

Maintenance and Repair

UFX requires little maintenance under normal conditions.

1. Wipe UFX and Charger Base with a clean, dry, soft cloth after every use. Make sure all plugs and sockets of UFX and Base are dry and free from dirt and debris.

2. Remove all batteries from Base and Transmitter after each use. **Do not store with batteries inside.**

3. Check wings for flight damage after each use.

Propeller Replacement

IMPORTANT: HOLD MOTOR FIRMLY BETWEEN FINGERS SO STRESS IS NOT PLACED ON THE WING ITSELF

Grip the sides of MOTOR COWLING firmly between your thumb and index finger and carefully pry the damaged PROPELLER off the shaft with REMOVAL TOOL (or a penny or other broad, flat object). (Fig. 15)

Still holding MOTOR COWLING firmly between thumb and index finger, carefully push the new PROPELLER onto the shaft. Be sure PROPELLER turns freely without touching WING. If it does, pry the PROPELLER slightly out on shaft until it turns freely without touching WING.

Wing Repair and Replacement

Minor or even moderate damage to a wing can often be repaired using a small piece of clear, lightweight tape -- the same kind that holds the antenna wire to the antenna wing (use ordinary "Scotch"-type tape or clear package wrapping tape).

In the event of major damage, your UFX comes with an extra yellow and blue wing and two replacement propellers to allow you to replace broken parts. Additional wings can be ordered direct from Taiyo Edge. See enclosed order form.

Replace Non-Powered Wing

Gently but firmly swing old wing to the left out of locked position. Tilt wing upward to unhook and replace with new wing of same color.

Replace Yellow Antenna Wing

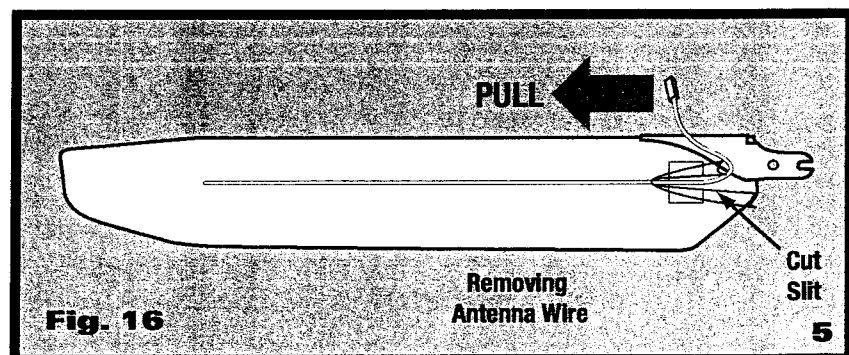
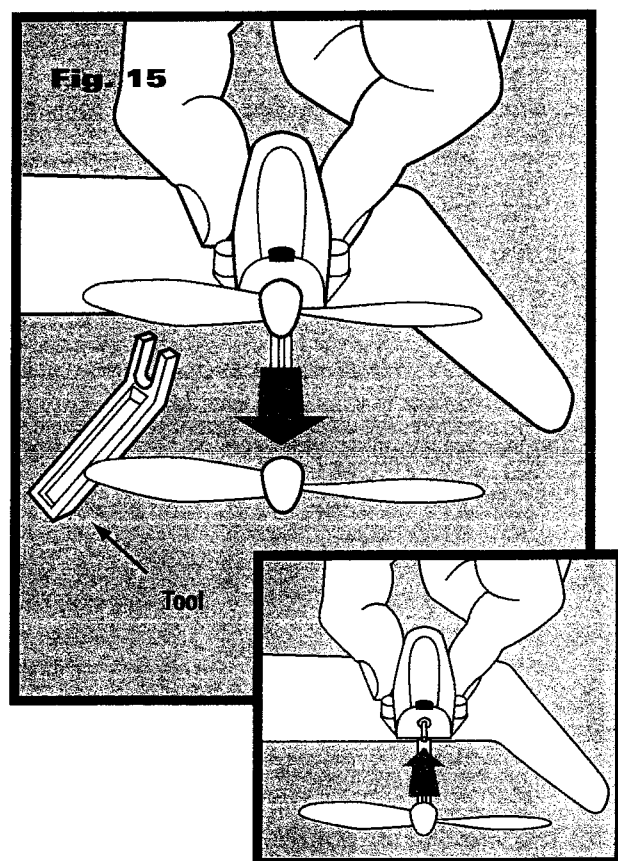
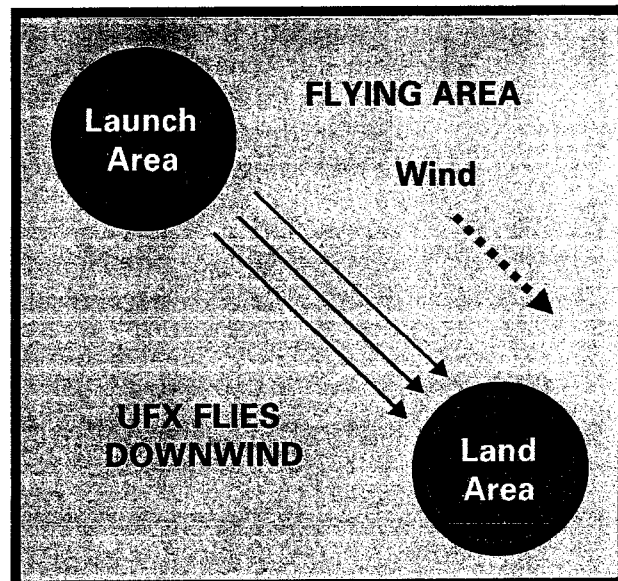
1. First disconnect plug, then remove damaged wing as above.

2. An adult should use a scissors to cut a small slit in the clear plastic wing covering material where the plug end of the wire enters the wing. (Fig. 16)

3. Carefully pull the wire away from the wing. The plastic covering will split to allow removal.

4. Place the antenna wire in the shallow groove of the new wing, in the same position as on the old wing. Use a short piece of clear tape to secure each end of the wire. Then use a longer piece of tape to cover up the middle of the wire and secure it to the wing.

5. Attach the new wing to the hub and plug it in.

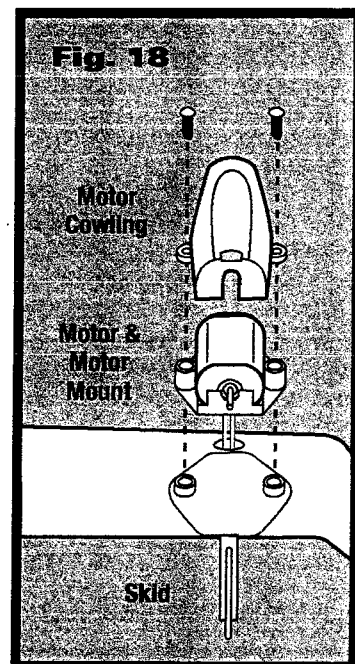
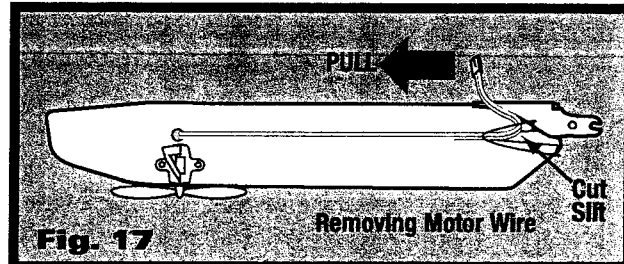


Replace Blue Motor Wing

1. Disconnect plug and remove the damaged wing. You will need to remove the motor and propeller assembly and then install it on the replacement wing. First, remove propeller as above.
2. Follow steps 2 and 3 above to free the wire. (Fig. 17)
3. Use a small Philips screwdriver to remove the screws holding the MOTOR COWLING to the top of the wing and remove the COWLING.
4. At the same time, pull MOTOR & MOUNT from top of wing and SKID from bottom. Lift MOTOR & MOUNT and pull WIRE assembly through HOLE in WING. (Fig. 18)
5. Install motor onto new wing in reverse order. Insert MOTOR & MOUNT from top and SKID from bottom. Thread plug end of wire through hole. Place COWLING over MOTOR & MOUNT and replace screws. Replace propeller as above, making sure to hold cowling firmly as you push it on. Tape wire into shallow groove on wing as in step 4 of previous section. Attach wire to hub and plug it in.

R/C Facts

1. Your UFX™ runs on the 27MHz frequency. In order to run two R/C vehicles in the same area, they must be on different frequencies or they will interfere with each other. Check frequency labels on other vehicle and transmitter for 49MHz designation. Make sure there are no 27MHz R/C vehicles around your flight area to cause interference.
2. Transmitter has a range of about 100 feet. Don't fly too far away or you may lose control of your UFX. If UFX goes out of range, move carefully toward UFX while lifting transmitter high into air to temporarily increase range.
3. Radio interference can interfere with the control of your UFX. Buildings, walls, power wires, fences, other R/C transmitters, or CB radio can all cause problems. Pick a place to fly that's away from these things.
4. Hold Transmitter so antenna points up, not toward the vehicle. Keep UFX within range to keep control.
5. Turn UFX power switch off after landing as soon as propellers stop. Remove batteries for storing.



Troubleshooting Guide -- Use this valuable guide to solve problems before contacting us or returning to store.

Problem	Probable Cause	Correction
UFX will not respond	• Battery problems / batteries dead or low • Motor power plugs unplugged • Dirt in power plugs or sockets • Antenna plug unplugged • Out of range • Radio interference	• Recharge UFX built-in battery on Charger Base • Replace Transmitter battery with fresh, new Alkaline battery • Unplug and replug motor power and antenna plugs • Unplug, clean, and replug motor power and antenna plugs • Move closer to UFX • Hold Transmitter high in air to regain control while moving closer • Remove interfering device or move to another location
UFX will not charge/Green LED on Base will not light	• Battery problems / batteries dead or low • Charger plug of base not plugged into charger socket on UFX hub • Charger base power switch off • UFX built-in battery too hot	• Remove and replace ALL 8 charger D-cells with fresh, new Alkalines • Plug Charger Plug into Hub socket • Turn on power switch • Wait for 10-15 mins. for UFX battery to cool and try again
One motor does not work	• Motor power plug unplugged • Dirt in one power plug or socket • Grass or other debris wound around propeller shaft • Prop pushed onto shaft too far and is rubbing wing	• Unplug and replug motor power plug • Unplug, clean, and replug motor power plug • Remove debris from shaft • Hold motor firmly and use penny or other broad, flat object to pull out prop from rubbing wing
Erratic operation, loss of control	• Battery problems / batteries dead or low • Antenna plug unplugged • Out of range • Radio interference	• Recharge UFX built-in battery on Charger Base • Replace Transmitter battery with fresh, new Alkaline battery • Replug Antenna plug • Move closer to UFX • Hold Transmitter high in air to regain control while carefully moving closer • Remove interfering device or move to another location

COMPLIANCE WITH FCC REGULATIONS

THIS DEVICE COMPLIES WITH PART 15 OF FCC RULES. OPERATION OF THIS DEVICE IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND

(2) THIS DEVICE MUST ACCEPT ANY HARMFUL INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

This device generates and uses radio frequency energy and if not used properly may cause interference to radio and television reception. It has been tested and found to comply with the limits set by the FCC, which are designed to provide reasonable protection against such interference.

CAUTION: FCC Regulations state that changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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© 2002, 2003 Taiyo Edge Ltd. Co., P.O. Box 1470, New Smyrna Beach, FL 32170, U.S.A. All Rights Reserved. U.S. Patent 5,297,759. Other U.S. and Foreign Patents Pending. Product specifications subject to change. Product may differ from illustrations. 2380-US

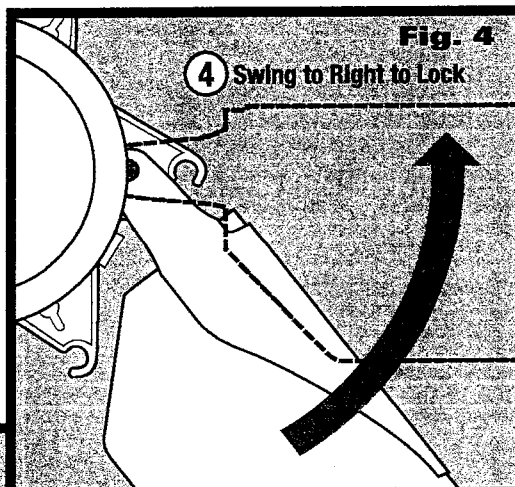
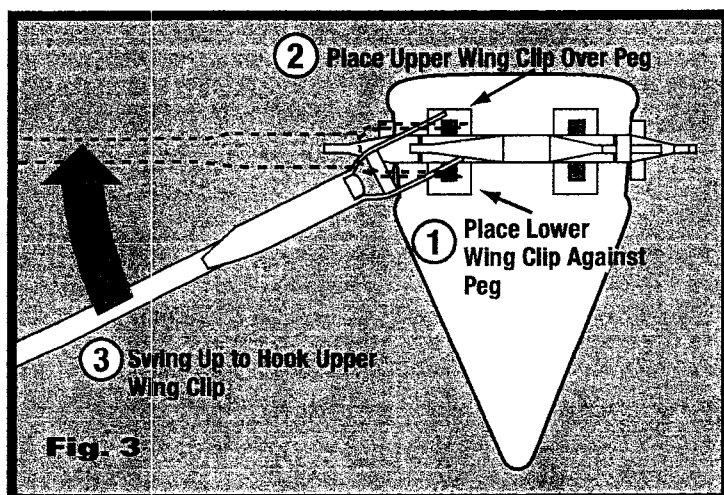
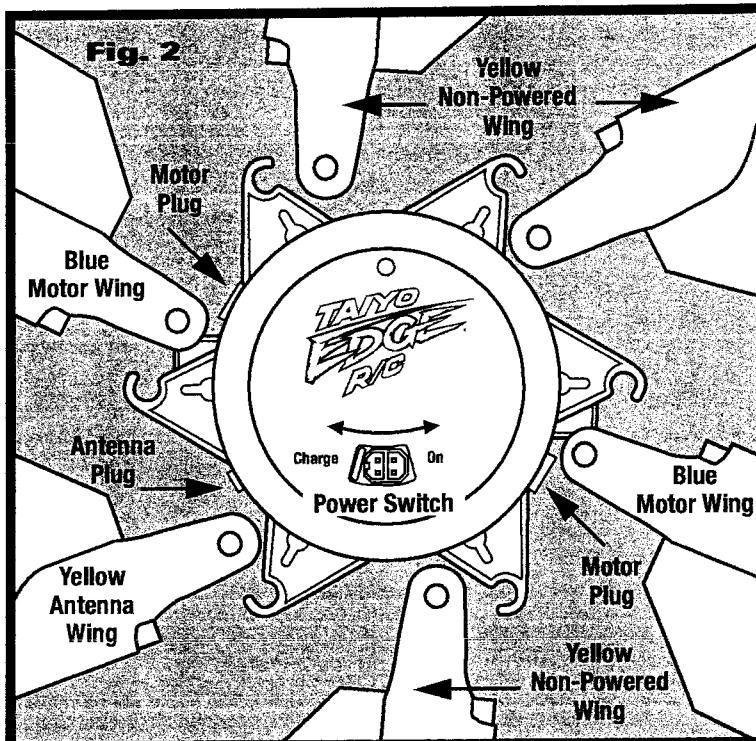
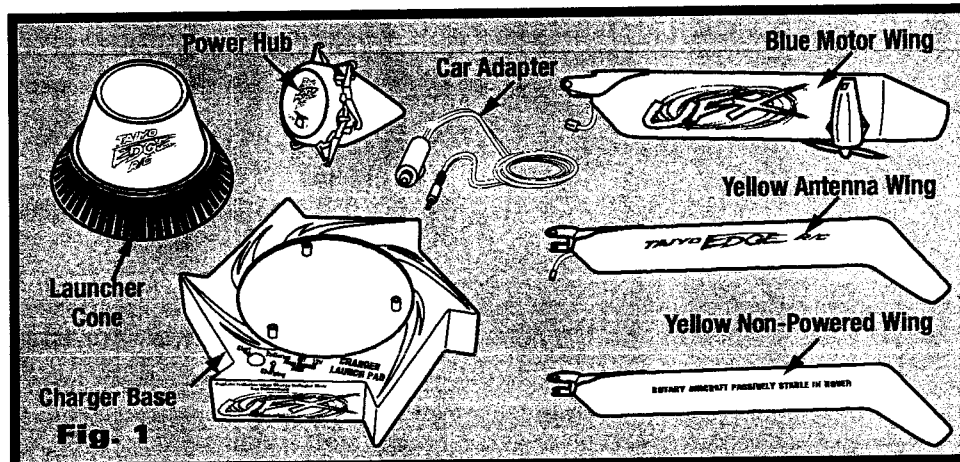
Assembly Required

Remove all UFX components the packaging and lay them out for identification. (Fig. 1)

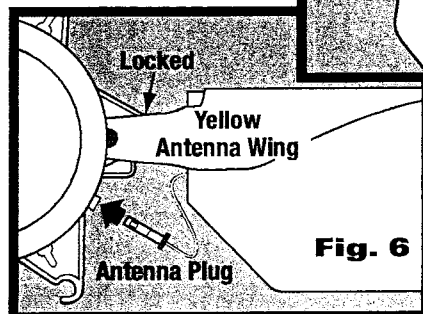
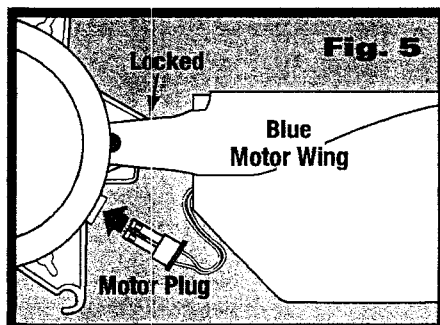
Note: Be careful when unwrapping wire ties or other packaging material to avoid damaging parts. Don't use any sharp tool that could cut or score wings. Save the packaging tray to store disassembled UFX when not in use.

Attaching Wings

1. Study Fig. 2 carefully. It shows which wings go where, and also the correct angle to "approach" the POWER HUB with each wing. Note POWER SWITCH is in "CHARGE" position.
2. Push CUTOOUT of BOTTOM CLIP of a BLUE MOTOR WING onto BOTTOM POST on HUB marked "MOTOR" as shown in Fig. 3.
3. Holding BOTTOM CLIP against bottom POST, raise WING so that HOLE in TOP CLIP goes over TOP POST on HUB. (Fig 3)
4. Swing WING to RIGHT until it locks into place on HUB. Use gentle but firm pressure. Rock WING gently back and forth to make sure it is locked into place. (Fig. 4)
5. Connect 2-wire POWER PLUG from WING to 2-wire POWER JACK in HUB. (Fig 5)
6. Repeat for other BLUE POWER WING and other HUB POST marked "MOTOR". (Fig 4)
7. Repeat Steps 2-6 above for YELLOW ANTENNA WING and POST marked "ANTENNA".
 - a. Connect 1-wire ANTENNA PLUG from WING to 1-wire ANTENNA JACK in HUB. (Fig 6)
8. Repeat Steps 2-6 above for 3 YELLOW NON-POWER WINGS and 3 remaining POSTS on HUB.



UFX itself has a built-in rechargeable NiMH battery that cannot be replaced. Do not attempt to open UFX Power Hub or you may damage it and void warranty.



9. To disassemble for transport and storage, turn switch to CHARGE position. Unplug all plugs, swing each WING to left to unlock, and raise it to remove first bottom, then top CLIP from POSTS.