MULTIPLEX®

RR

 # 26 4293

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Version 1.0

Safety Information for MULTIPLEX model aircraft

GB

This model is NOT A TOY in the usual sense of the term.

By operating the model the owner affirms that he is aware of the content of the operating instructions, especially those sections which concern safety, maintenance, operating restrictions and faults, and is capable of fulfilling these requirements.

This model must not be operated by any child under fourteen years of age. If a person below this age operates the model under the supervision of a competent adult who is acting as the child's guardian within the legal sense of the term, this individual is responsible for the implementation of the information in the OPERATING INSTRUCTIONS.

THE MODEL AND ASSOCIATED ACCESSORIES MUST BE KEPT OUT OF THE REACH OF CHILDREN UNDER THREE YEARS OF AGE! MODELS CONTAIN SMALL DETACHABLE PARTS WHICH MAY BE SWALLOWED BY CHILDREN UNDER THREE YEARS. CHOKING HAZARD!

All the warnings in the OPERATING INSTRUCTIONS must be observed whenever the model is operated. Multiplex Modellsport GmbH & Co. KG accepts no liability for loss or damage or any kind which occurs as a result of incorrect operation or misuse of this product, including the accessories required for its operation. This includes direct, indirect, deliberate and accidental loss and damage, and all forms of consequent damage.

Every safety note in these instructions must always be observed, as all the information contributes to the safe operation of your model. Use your model thoughtfully and cautiously, and it will give you and your spectators many hours of pleasure without constituting a hazard. Failure to operate your model in a responsible manner may result in significant property damage and severe personal injury. You alone bear the responsibility for the implementation of the operating instructions and the safety notes.

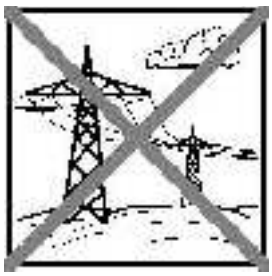
Approved usage

The model is approved exclusively for use within the modelling hobby. It is prohibited to use the model for any other purpose than that stated. The operator of the model, and not the manufacturer, is responsible for damage or injury of any kind resulting from non-approved use.

The model may only be operated in conjunction with those accessories which we expressly recommend. The recommended components have undergone thorough testing, are an accurate match to the model, and ensure that it functions safely. If you use other components, or modify the model, you operate it at your own risk, and any claim under guarantee is invalidated.

To minimise the risk when operating the model, please observe the following points:

- The model is guided using a radio control system. No radio control system is immune to radio interference, and such interference may result in loss of control of the model for a period of time. To avoid collisions, you must therefore ensure at all times that there is a wide margin of safety in all directions when operating your model. At the slightest sign of radio interference you must cease operating your model!
- Never operate your model until you have successfully completed a thorough check of the working systems, and carried out a range-check as stipulated in the instructions supplied with your transmitter.
- The model may only be flown in conditions of good visibility. You can avoid being temporarily blinded by not flying towards the sun, or in other difficult light conditions.
- A model must never be operated by a person who is under the influence of alcohol, drugs or medication which have an adverse effect on visual acuity and reaction time.
- Only fly your model in conditions of wind and weather in which you are able to maintain full control of the model. Even when the wind is light, bear in mind that turbulence can form at and around objects which may have an effect on the model.
- Never fly in any location where you may endanger yourself of others, e.g. close to residential areas, overhead cables, open roads and railway lines.
- Never fly towards people or animals. You may think that flying low over other people's heads is proof of your piloting skill, but all it does is place others at unnecessary risk. It is in all our interests that you let other pilots know that this is what you think. Always fly in such a way that you do not endanger yourself or others. Bear in mind that even the best RC system in the world is subject to outside interference. No matter how many years of accident-free flying you have under your belt, you have no idea what will happen in the next minute.



Residual risks

Even if the model is operated in the correct manner, and you observe all safety aspects, there is always a certain residual risk.

For this reason it is mandatory to take out **third-party liability insurance**. If you join a club or flying association, insurance is usually available or included in the annual fee. Make sure that your insurance cover is adequate (i.e. that it covers powered model aircraft). Always keep your models and your radio control equipment in perfect order.

The following hazards may occur owing to the model's construction and type:

- Injury caused by the propeller: you must keep well clear of the area around the propeller from the moment that the battery is connected. Please bear in mind that objects in front of the propeller may be sucked into it, and objects behind the propeller may be blown away by it. The model may start moving when the propeller starts to turn. You must therefore position the model in such a way that it cannot move towards other persons if the motor should unexpectedly start running. When you are carrying out adjustment work involving the running motor, you must ensure that the model is always held securely by an assistant.

- Crash caused by pilot error: this can happen even to the best of pilots, so it is essential to fly exclusively in a safe environment: an approved model flying site and suitable insurance are basic essentials.

- Crash caused by technical failure or unnoticed damage in transit or in the workshop. A thorough check of the model before every flight is essential. However, you should also take into account at all times that material failures can and do occur. Never fly in a location where your model may damage or injure others.

- Keep within the stated operating limits. Excessively violent flying will weaken the airframe, and may result in sudden material failure, or may cause the model to crash during a subsequent flight due to "creeping" consequent damage.

- Fire hazard caused by electronic failure or malfunction. Store batteries safely, and always observe safety notes which apply to the airborne electronic components, the battery and the battery charger. Protect all electronic equipment from damp. Ensure that the speed controller and battery are adequately cooled.

The instructions which accompany our products must not be reproduced and / or published, in full or in part, in print or any electronic medium, without the express written approval of Multiplex Modellsport GmbH & Co. KG.

Examine your kit carefully!

GB

MULTIPLEX model kits are subject to constant quality checks throughout the production process, and we sincerely hope that you are completely satisfied with the contents of your kit. However, we would ask you to check all the parts **before** you start construction, as **we cannot exchange components which you have already worked on**. If you find any part is not acceptable for any reason, we will readily correct or exchange it. Just send the component to our Model Department. Please be **sure** to include the purchase receipt and a brief description of the fault.
We are constantly working on improving our models, and for this reason we must reserve the right to change the kit contents in terms of shape or dimensions of parts, technology, materials and fittings, without prior notification. Please understand that we cannot entertain claims against us if the kit contents do not agree in every respect with the instructions and the illustrations.

Caution!
Radio-controlled models, and especially model aircraft, are by no means playthings. Building and operating them safely requires a certain level of technical competence and manual skill, together with discipline and a responsible attitude at the flying field. Errors and carelessness in building and flying the model can result in serious personal injury and damage to property. Since we, as manufacturers, have no control over the construction, maintenance and operation of our products, we are obliged to take this opportunity to point out these hazards and to emphasise your personal responsibility.

Warning:
Like every aeroplane, this model has static limits. Steep dives and senseless manoeuvres inappropriate to the type may result in the loss of the aircraft. Please note: we will not replace the model in such cases. It is your responsibility to approach the airframe's limits gradually. It is designed for the power system recommended in these instructions, but is only capable of withstanding the flight loads if built exactly as described and if it is in an undamaged state.

Recommended equipment:

Zacki ELAPOR 20g VE1	Item number:	**852727**
Li-BATT FX 3/1-450 (M6)	Item number:	**157311**
Receiver RX-5 light M-LINK 2,4 GHz	Item number:	**55808**
COCKPIT SX M-LINK classic, transmitter 2,4 GHz	Item number:	**45130/1/2**
Combo MULTIcharger LN-3008 EQU w.Mains PSU, AC/DC 230V/12V 5,0A	Item number:	**92545**
Charge lead w. high current plug (M6)	Item number:	**92516**

Optional equipment:

Model-Service-Box	Item number:	**85500**

Important note
This model is not made of Styrofoam™, and it is not possible to glue the material using white glue, polyurethane or epoxy; these adhesives only produce superficial joints, and simply break away under stress. Please be sure to use medium-viscosity cyano-acrylate glue exclusively, preferably Zacki ELAPOR® # 59 2727, which is optimised specifically for ELAPOR® particle foam. If you se Zacki ELAPOR® there is usually no need for cyano 'kicker' or activator. However, if you wish to use a different adhesive which requires the use of activator, please note that these materials are injurious to health, and should always be applied in the open air. Take care when handling all cyano-acrylate adhesives, as they harden in seconds, so don't get them on your fingers or other parts of the body. We strongly recommend the use of goggles to protect your eyes. Keep the adhesive out of the reach of children! For certain joints it is also possible to use hot-melt adhesive; the instructions indicate where this is the case.

Working with Zacki ELAPOR®
Zacki ELAPOR® has been developed specifically for glued joints in our models which consist of moulded ELAPOR® foam parts.
Please observe the following points in order to obtain perfect joints:
- Avoid the use of activator. 'Kicker' significantly weakens the joint. We advise leaving joined parts for 24 hours to obtain maximum strength, particularly when the glued area is large.
- Activator should only be used for temporary, small-area joints ('tacking'). Spray a little activator on one surface, and allow it to air-dry for about thirty seconds.
- To obtain maximum joint strength you should lightly sand the surface with 320-grit abrasive paper before applying glue.

Bent parts - actually don't exist. If you find that a component has taken up a curve, perhaps after being transported, it is easy to straighten again. In this respect ELAPOR® behaves in a similar way to metal: bend the component back slightly beyond the correct position, and the material will then spring back to its proper shape when released, and maintain it. There are limits, however - don't overdo it!

Bent parts - really do exist. If you wish to paint your model, apply MPX Primer # 60 2700 to the surfaces, wiping it on very lightly as if you were cleaning the model. Paint must always be applied **thinly and evenly**, otherwise the component will warp. Then you really will have bent parts, and they will also be heavy and perhaps even unusable. We have found that matt-finish paints produce the best visual effect.

Technical information STUNTMASTER:

Wingspan:	870 mm
Overall length:	928 mm
All-up weight:	350 g
Total surface area:	24 dm²
Wing loading:	14,6 g/dm²
Channels:	4
RC Functions:	rudder, elevator, aileron, motor
Flight time:	ca. 5 min (3S ~450 mAh)

Note: please remove the pictures from the center of the instructions!

Congratulations on your new STUNTMASTER!

Completing the model:

You will need the following tools to complete the model:

- Ruler or tape measure
- Small cross-point screwdriver
- Slot-head screwdriver (approx. 5 mm)
- Sharp balsa knife
- Pointed-nose pliers
- Zacki Elapor adhesive **# 852727**

Start by checking the kit components against the Parts List on page **15 (Fig. 01)**, to ensure that everything is present in the box.

1. Installing the undercarriage (Fig. 02):

Apply a drop of Zacki to each side of the fuselage **1**, and push the two undercarriage legs **10** and **11** into the appropriate openings. Ensure that the fuselage is level when standing on the undercarriage.

2. Attaching the wing (Fig. 03):

Working from the right-hand side, slide the wing **2** half-way through the fuselage **1**. Now apply a little Zacki to the central area of the wing, top and bottom.

→Tip: if you apply the glue only to the left-hand area of the wing centre section, the action of pushing the wing into place will distribute the adhesive over the whole joint surface.

Push the wing fully into the fuselage, checking immediately that the two components are exactly at right-angles to each other. It is essential that the wing is "square" to the fuselage, i.e. dimensions **A** and **B** must be identical. The wing must also be at right-angles to the fuselage when viewed from the nose or tail. If excess glue is squeezed out of the joint, wipe it off using a paper towel.

3. Attaching the tailplane (Fig. 4):

The procedure for fitting the tailplane **3** is similar to that for attaching the wing. Dimensions **C** and **D** must be identical. Once again, ensure that everything is "square".

4. Attaching the rudder (Figs. 5 & 6):

First glue the in-fill piece **9** in the opening in the tail end of the fuselage **1**. The hinges for the rudder **4** can now be glued in the prepared slots.
→Tip: to ensure that the adhesive actually enters the hinge slots without spilling out, compress the tip of the Zacki bottle slightly using pointed-nose or flat-nose pliers, so that the exit opening is oval.
Take care to allow no more than a little adhesive to be squeezed out of the hinge slots, and maintain a gap about 1 mm wide between rudder and fin (rear edge of the fuselage). It is important that the rudder swivels freely and easily from one extreme to the other.

5. Installing the servos (Figs. 07 - 09):

First remove the battery hatch **7** from the fuselage **1**.

Apply a little Zacki to the base of the horn **24** and glue it in the moulded-in recess in the left-hand aileron. Remove the aileron servo from its well, and set it to centre (neutral) from the transmitter. Fit the output lever on the servo output shaft, and tighten the retaining screw firmly. The servo can now be glued in the appropriate opening in the fuselage by applying a little Zacki at each mounting lug.

Repeat the procedure with the rudder and elevator servos.

Route all the servo leads through to the front fuselage compartment.

6. Installing the wing and tailplane braces (Figs. 10 - 12):

Glue the supports **5** and **6** to the underside of the wing at the marked points, then glue the braces **16** (front, approx. 1.3 x 300 mm) and **17** (rear, approx. 1.3 x 305 mm) in place as shown. It is important that the braces are not under tension when fitted, as this could introduce warps into the wing. Check that the wing is still at right-angles to the fuselage when viewed from the nose and tail. Fix the braces to the wing and fuselage, applying a small drop of Zacki to the transitions between the plastic and CFRP parts.

Use the same general procedure to install the tailplane braces **15** (approx. 1.5 x 130 mm).

7. Installing the control surface linkages (Figs. 13 - 22):

AILERONS:
Locate the clevises attached to the pushrods **18** (approx. 1.3 x 130), connect them to the outer holes in the aileron servo output lever, then slide the rubber sleeves over them to prevent them coming adrift accidentally. Connect the pushrod clevises to the outer holes in the aileron horns, and secure them in the same way with small pieces of rubber sleeve. Switch the radio control system on, and set the aileron servo to neutral. Now slide the clevises in or out to adjust the length of the pushrods, so that both ailerons are also at the neutral (centre) position; tighten the clamping screws firmly when you are satisfied. Check that the aileron linkage works correctly, and that travels of around 95 mm up and 75 mm down are available, as required for 3D flying. If necessary, cut away a little foam from the fuselage to prevent the pushrods fouling it at the extremes of travel.

ELEVATOR:
Thread the elevator pushrod **19** (approx. 1.3 x 510 mm) through the black plastic guides on the left-hand side of the fuselage, and connect the pushrod to the outer hole of the elevator horn. Connect the pushrod to the servo output arm using a hole **15 mm** from the servo's central axis. Secure the pushrod and the clevises using the method described for the ailerons.

RUDDER:
Here there are two options: either a pushrod or pull-cables.

Advantages of the pushrod linkage:
- Easier to install
- Less sensitive to temperature fluctuations
- Easier to adjust

Advantages of the pull-cable linkage:
- More efficient transfer of servo power
- Lighter
- Reduced lost motion (slop)

In the final analysis both methods work well, and the choice is really just a matter of personal taste. All the parts for both versions are included in the kit, so either can be installed.

RUDDER option: pushrod linkage (Fig. 16):
Repeat the general procedure described for the elevator and aileron linkages: connect the rudder pushrod **20** (approx. 1.3 x 620 mm) to the outer hole of the rudder horn, and the second hole from the outside of the servo output arm. Secure the clevises as already described, and tighten the clamping screws firmly.

RUDDER option: pull-cable option (Figs. 17 - 22):
Use a clean, sharp balsa knife to cut off the plastic supports and raised foam sections on the right-hand side of the fuselage, leaving them flush with the foam surface. Thread the pull-cable **21** through the outer hole in the rudder horn, and tie a knot at a point about 8 mm forward of the horn. Apply a drop of Zacki to the knot to prevent it working loose.

Route the cable forward as far as the servo output lever, and cut it off leaving an excess of about 10 cm. Referring to Fig. **21**, thread it through the outer hole (or second hole from the outside) of the servo output lever. Set the servo to centre from the transmitter, and tape the rudder in the centre position.

Fit the screw **22** (1.4 x 6 mm) and the washer **23** (5 mm Ø) in the third hole from the outside of the output lever, tighten it about half-way, then tie the cable round it. Fix the cable to the screw with a little Zacki. If you now carefully tighten the screw further, the cable will be placed under tension. Repeat the procedure with the other side, and adjust the pull-cable linkage so that the rudder is exactly central when the servo output lever is at neutral.

8. Installing the motor and propeller (Figs. 23 - 26):

Slip the speed controller through the motor bulkhead, and permanently fix the motor in place using the retaining screws **25** (2 x 5 mm). Attach the propeller **14** to the motor using the propeller adapter ring **15**. Glue the locating pin **12** in the propeller with a little Zacki, then add the spinner, again using a little Zacki or contact cement.

9. Installing the receiver and flight battery (Figs. 27 & 28):

Connect all the servos to the receiver in the sequence stated in your RC system instructions, then push the receiver into the nose compartment as shown in Fig. **27**. Install the flight pack in the forward position.

10. Balancing (Figs. 29 & 30):

Push the battery hatch into place, and balance the model on your fingertips: the correct **Centre of Gravity** position is **95 - 105 mm**, measured from the wing leading edge at the root.

11. Recommended control surface travels

for the classic aerobatic schedule:

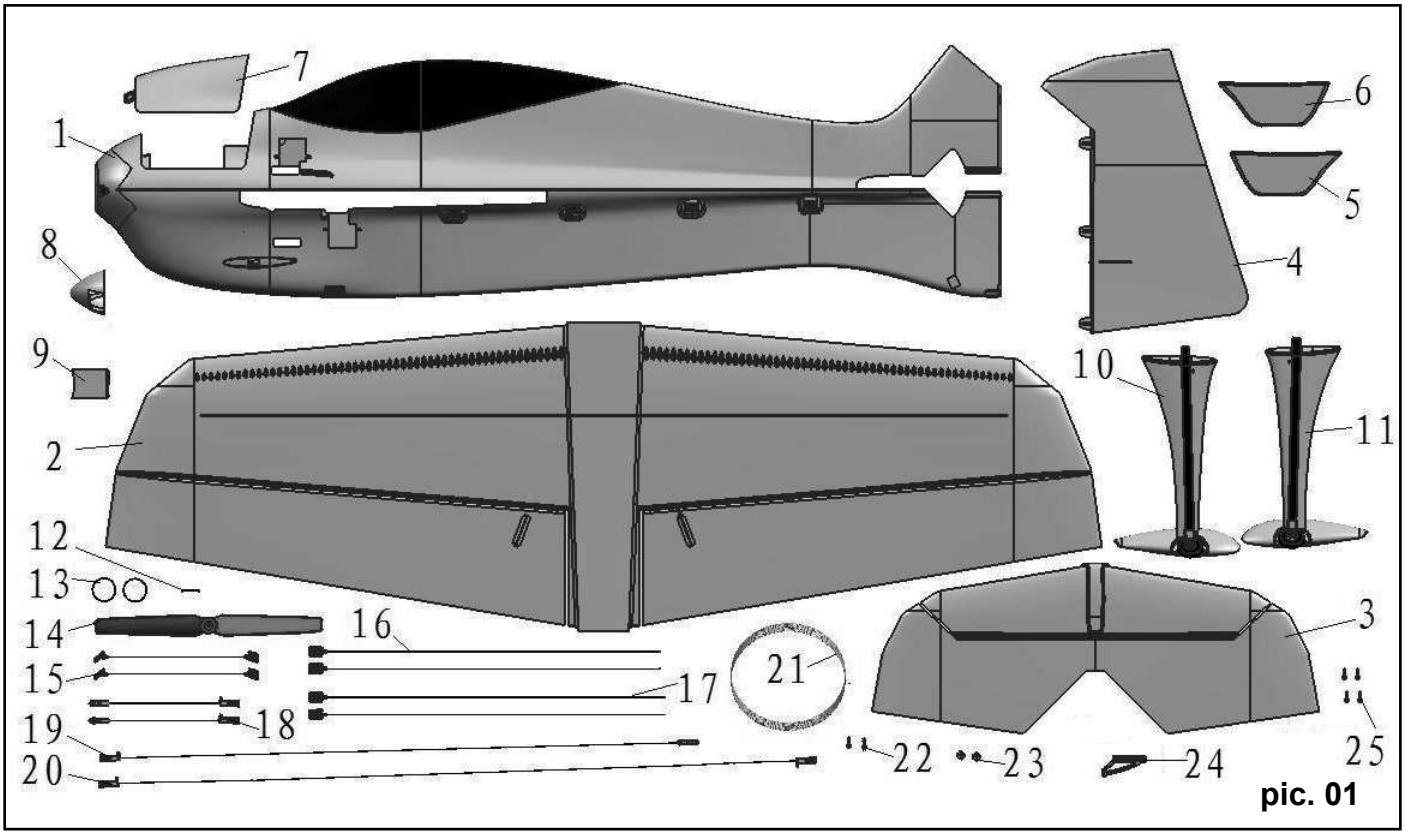
Rudder:	80 mm right / left, 50% EXPO
Elevator:	40 mm up, 40 mm down, 40% EXPO
Ailerons:	35 mm up, 35 mm down, 40% EXPO
Mixer (linear):	2% aileron to rudder, opposite travel →i.e.: ailerons deflect left by 2% at full right-rudder

For 3D aerobatics:

Rudder:	110 mm right / left, 60% EXPO
Elevator:	As much as possible up / down, 60% EXPO
Ailerons:	95 mm up / 75 mm down, 60% EXPO
Mixer (linear):	5% aileron to rudder opposite travel →i.e.: ailerons deflect left by 5% at full right-rudder

Parts List - STUNTMASTER# 264293:

Part No.	Qty	Description	Material	Dimensions
1	1	Fuselage	Elapor	Ready made
2	1	Wing	Elapor	Ready made
3	1	Tailplane	Elapor	Ready made
4	1	Rudder	Elapor	Ready made
5,6	2	Brace support	Elapor	Ready made
7	1	Battery hatch	Elapor	Ready made
8	3	Spinner	Elapor	40 mm Ø
9	1	Fin in-fill piece	Elapor	Ready made
10	1	Left-hand undercarriage leg	Elapor	Ready made
11	1	Right-hand undercarriage leg	Elapor	Ready made
12	2	Spinner centring pin	CFRP	2.5 x 13
13	2	O-ring for attaching propeller	Rubber	17 mm Ø
14	1	Propeller, GWS EP	Plastic	9 x 5“
15	2	Propeller adapter ring	Aluminium	10 mm Ø
15	2	Tailplane brace	CFRP / plastic	approx. 1.5 x 130 mm
16	2	Front wing brace	CFRP / plastic	approx. 1.3 x 300 mm
17	2	Rear wing brace	CFRP / plastic	approx. 1.3 x 305 mm
18	2	Aileron pushrod	CFRP / plastic	approx. 1.3 x 130 mm
19	1	Elevator pushrod	CFRP / plastic	approx. 1.3 x 510 mm
20	1	Rudder pushrod	CFRP / plastic	approx. 1 3 x 620 mm
21	1	Rudder pull-cable	Kevlar	approx. 3.3 m long
22	4	Screw	Metal	1.4 x 6 mm
23	4	Washer	Metal	5 mm Ø
24	1	L.H. aileron horn	Plastic	Ready made
24	3	Pushrod clevis	Plastic	Ready made
25	4	Motor mounting screw	Metal	2 x 5 mm
26	1	STUNTMASTER building instructions	Paper	Din A 4
27	1	Model complaint processing form	Paper	Din A 5



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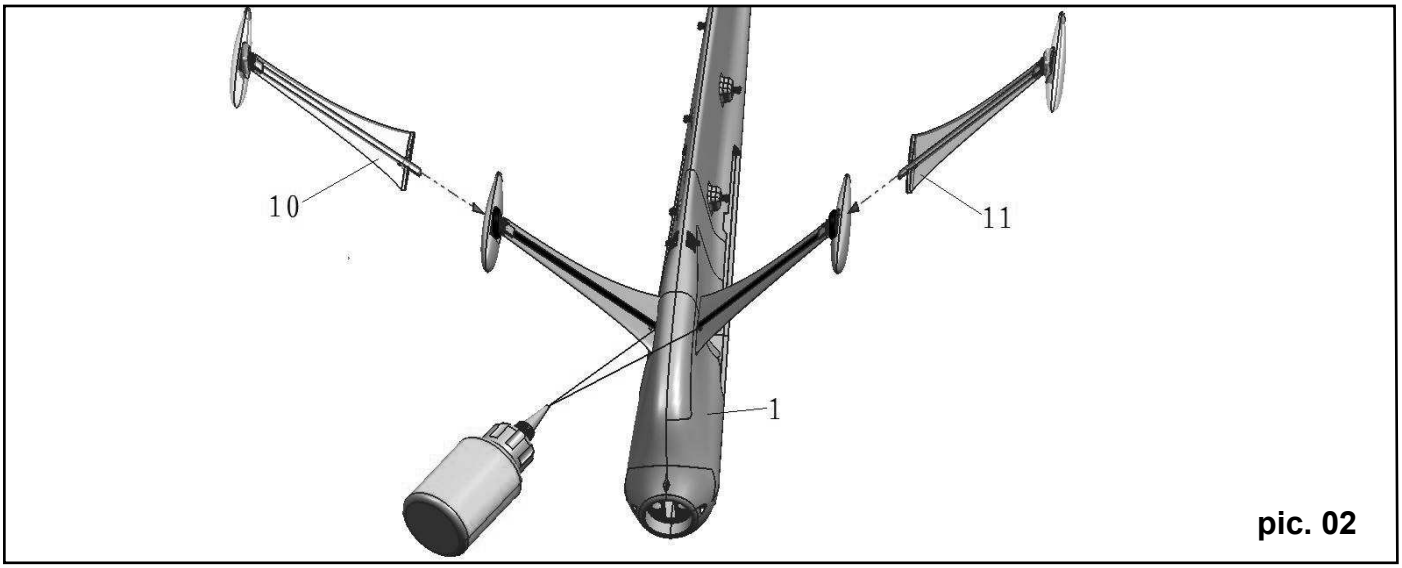

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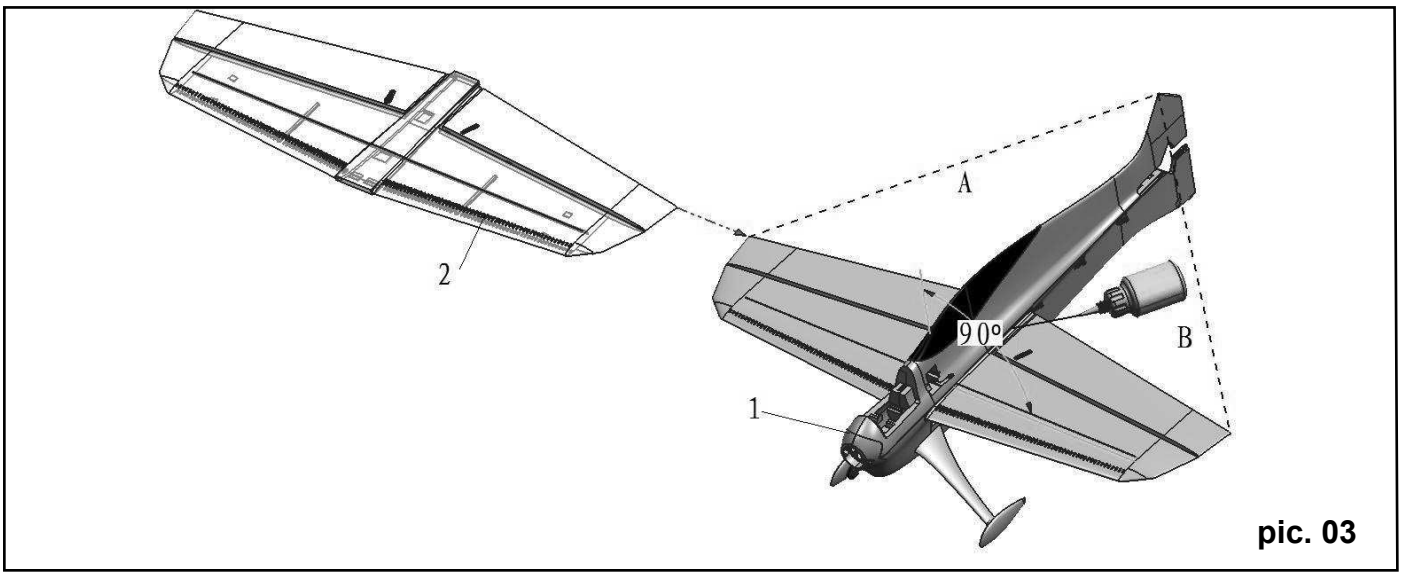

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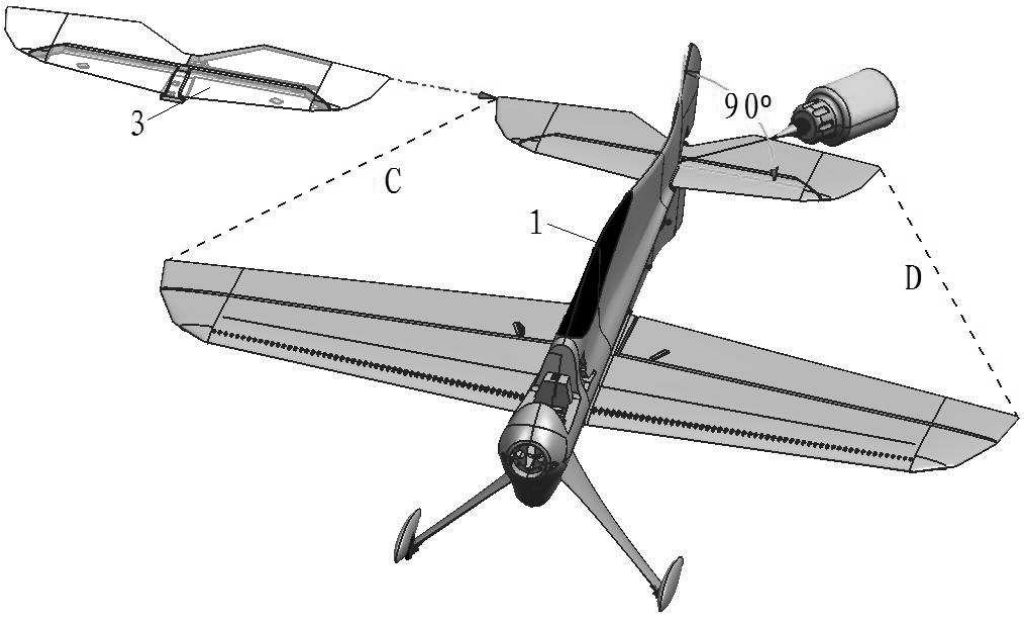

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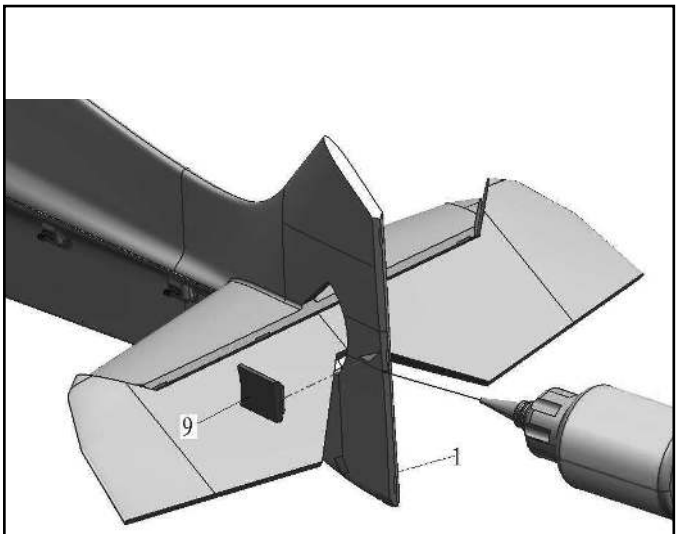

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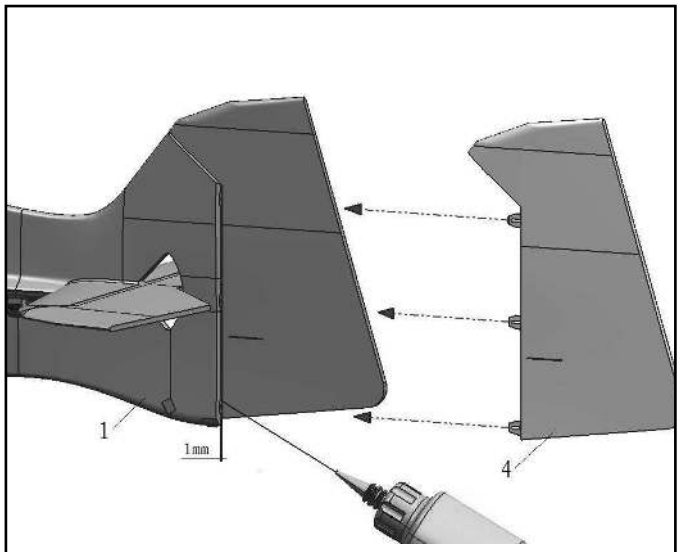

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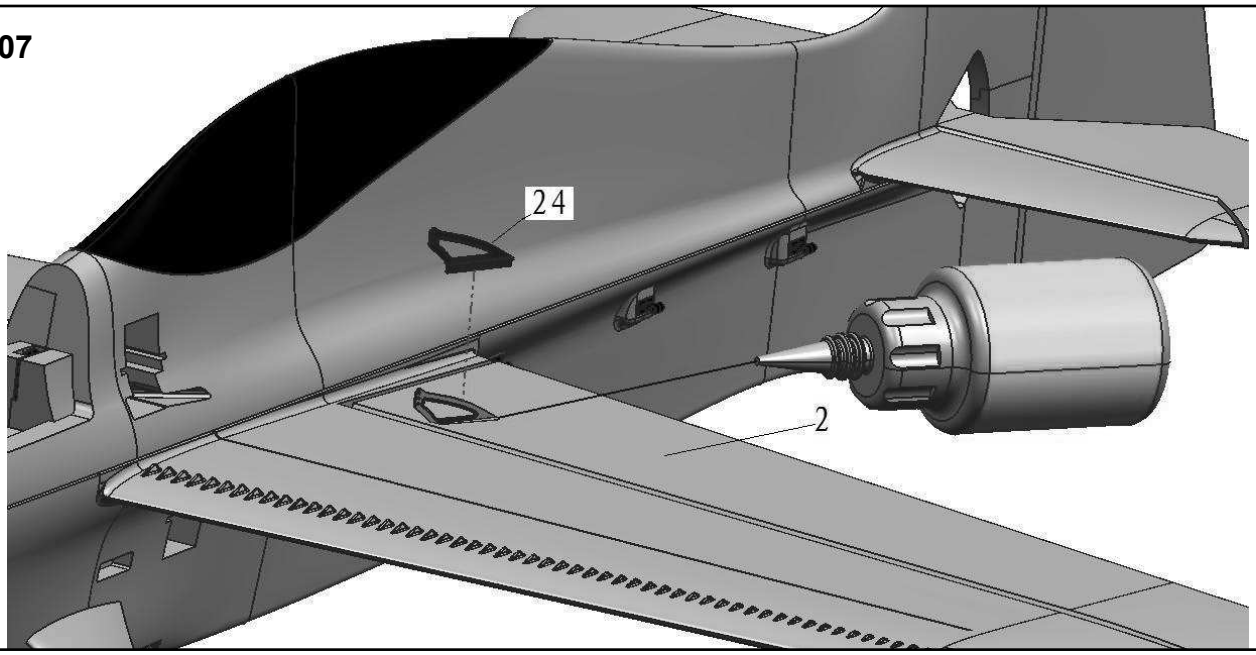

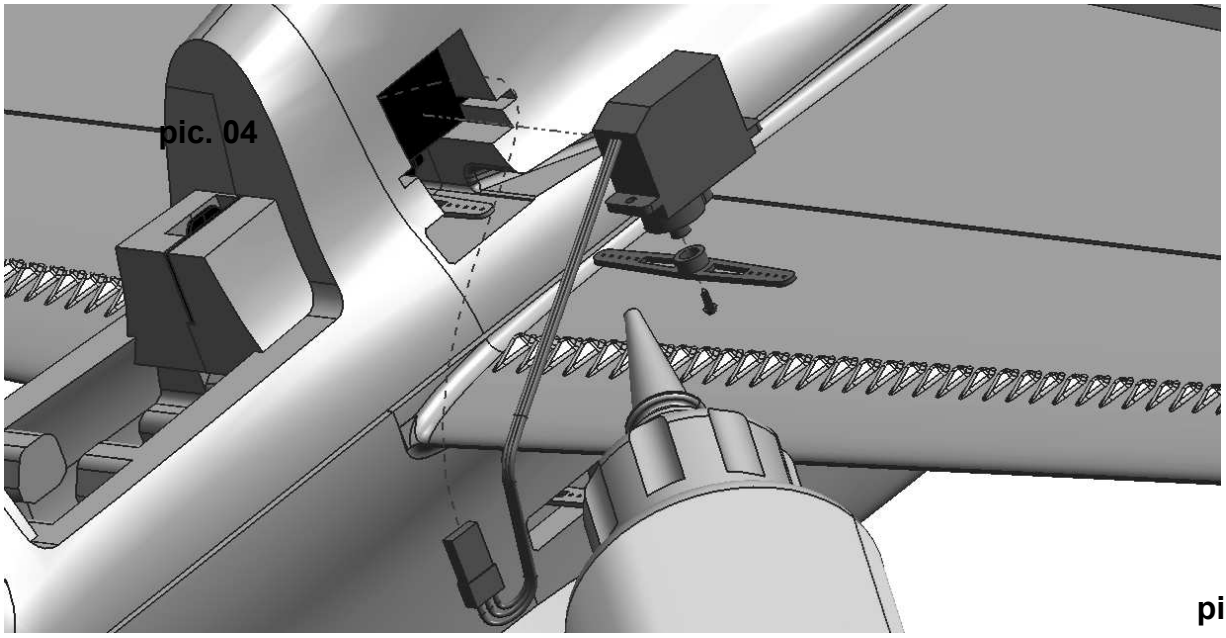

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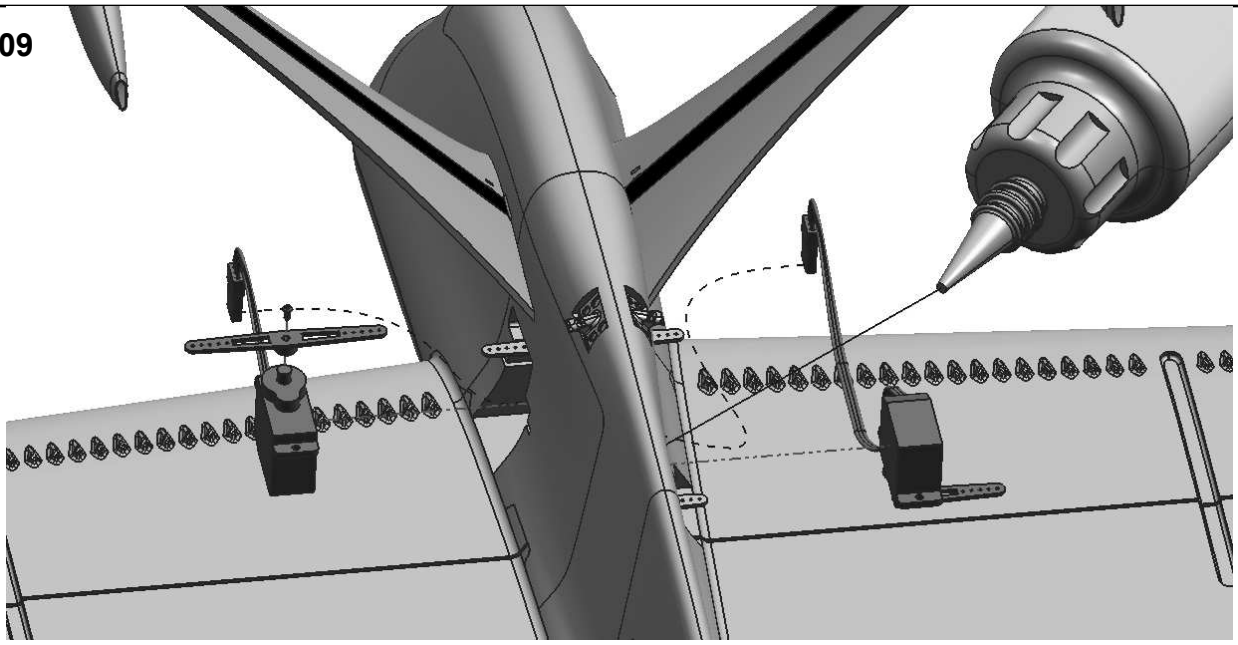

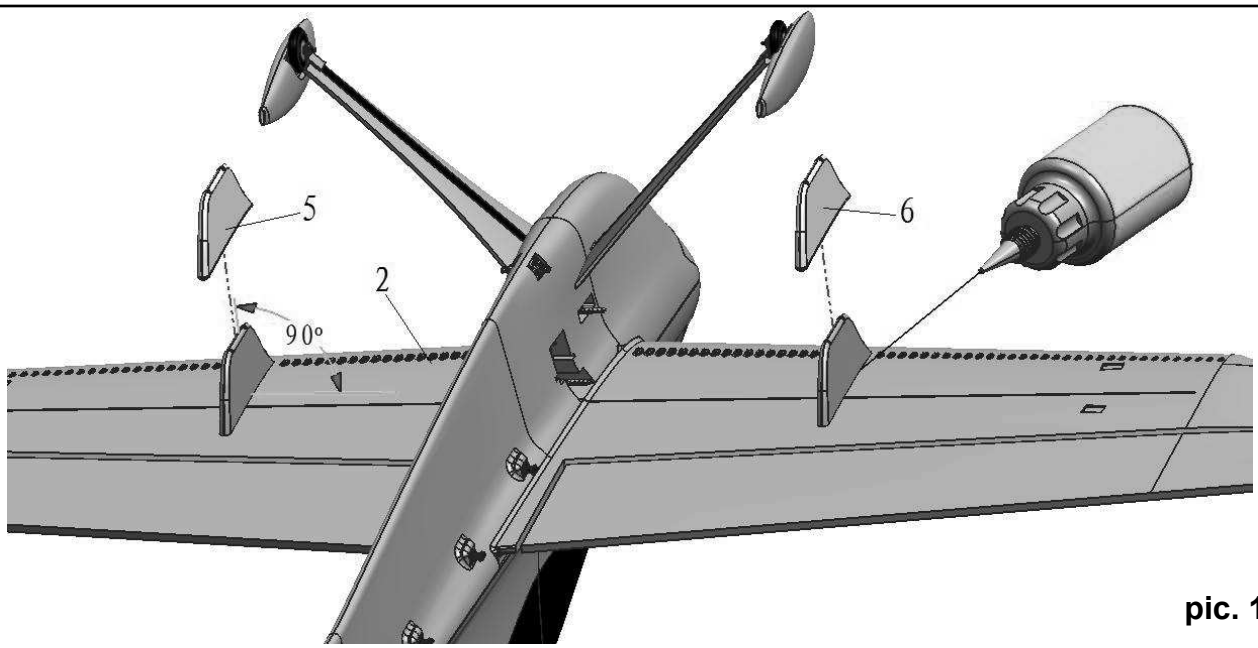

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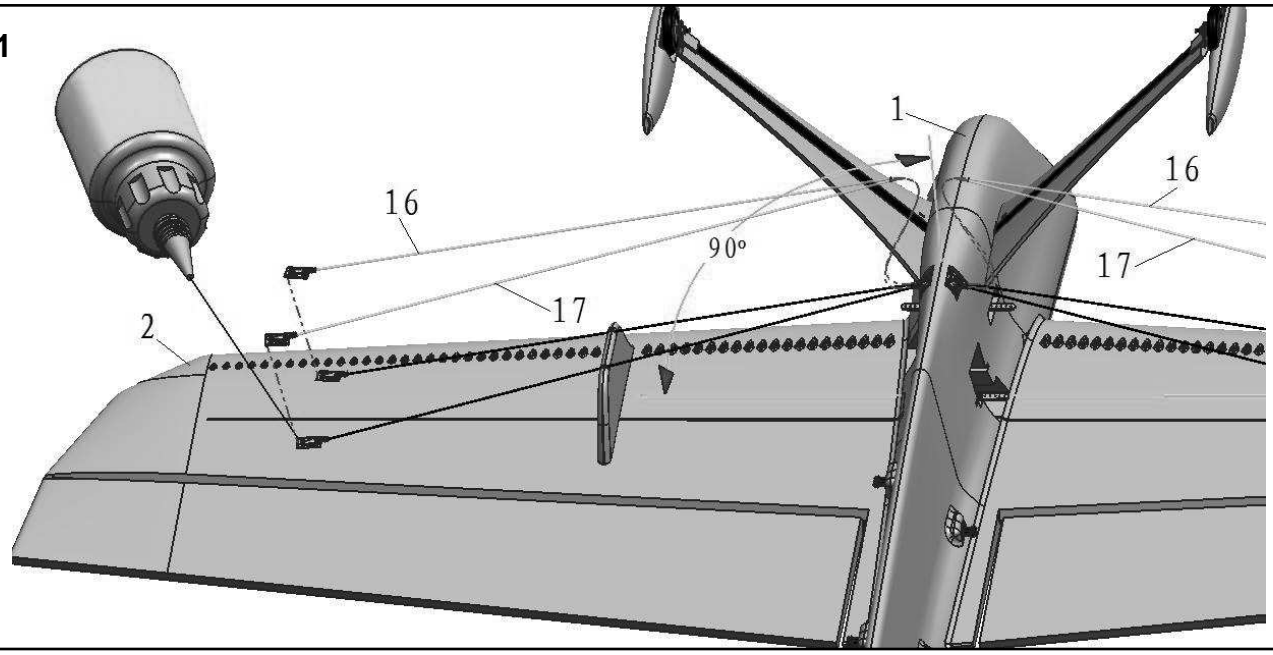

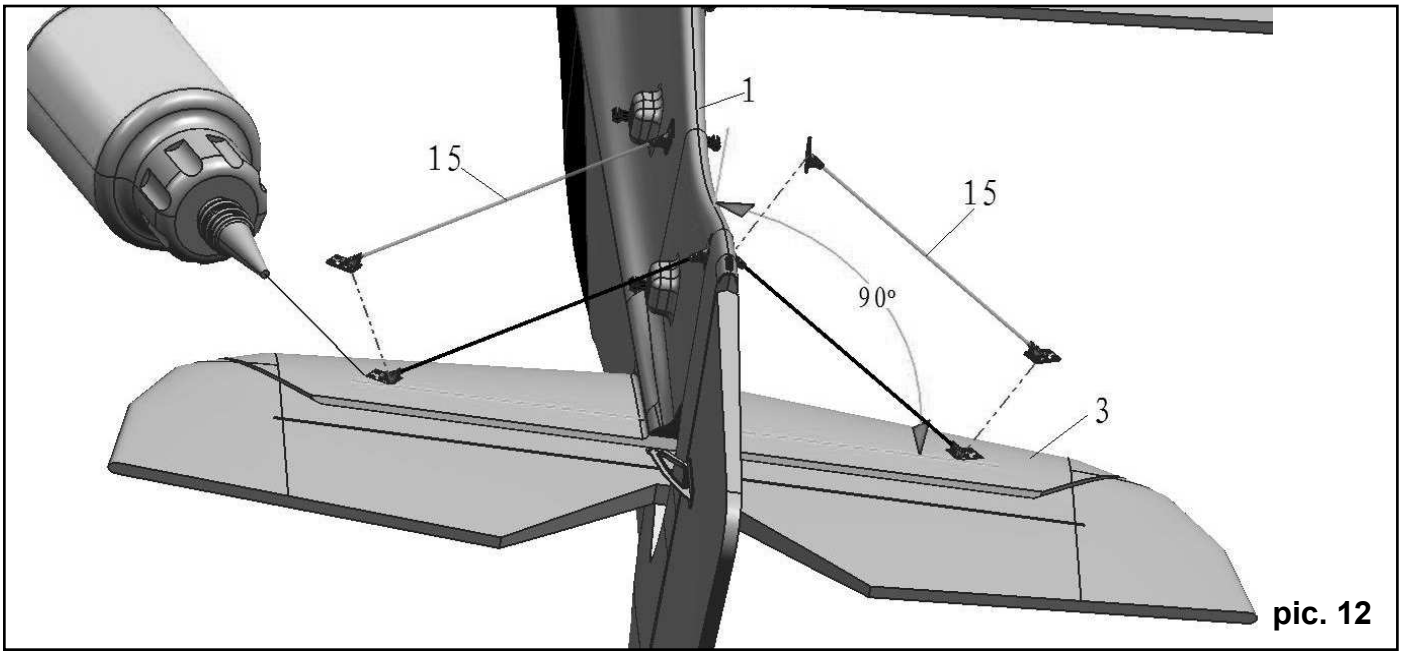

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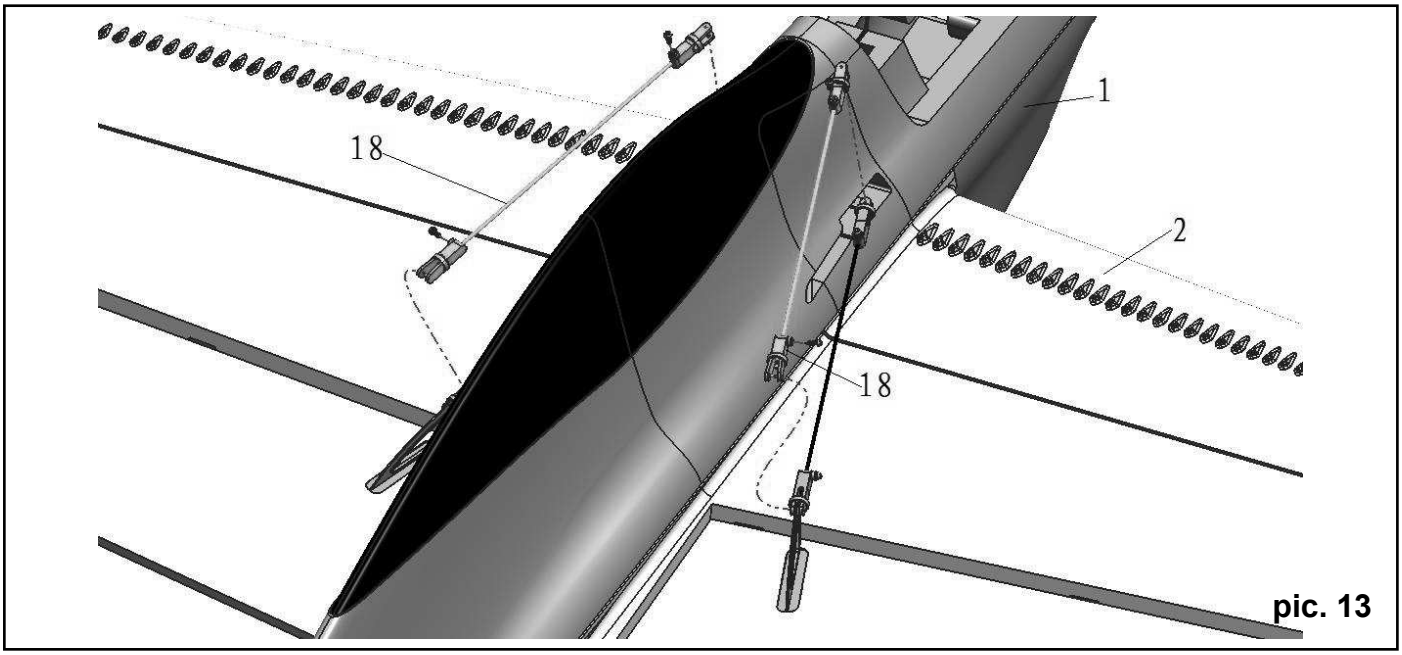

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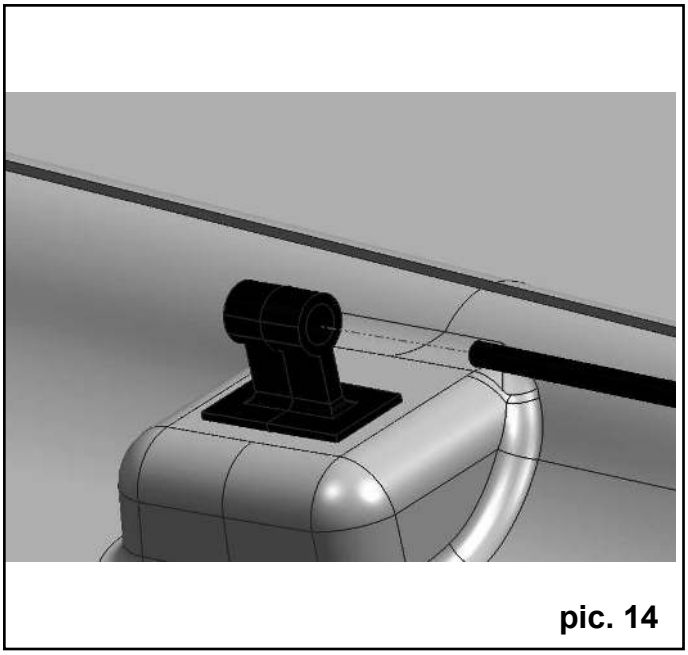

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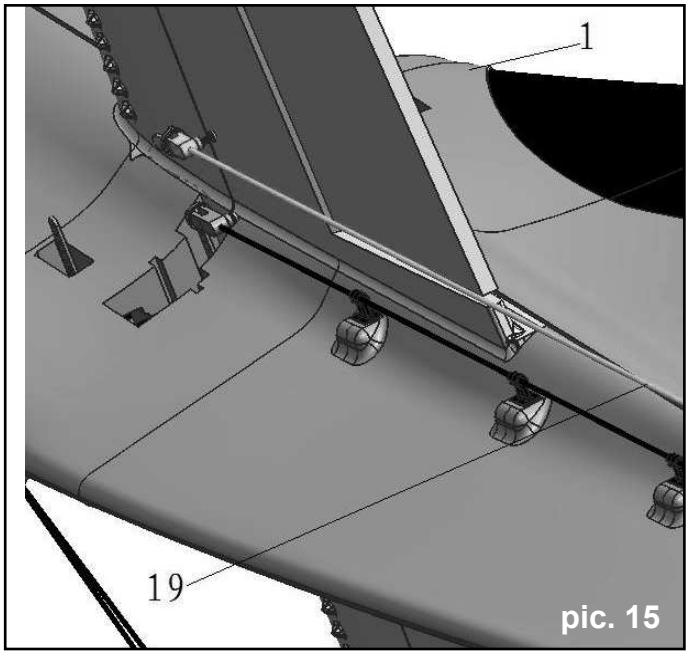
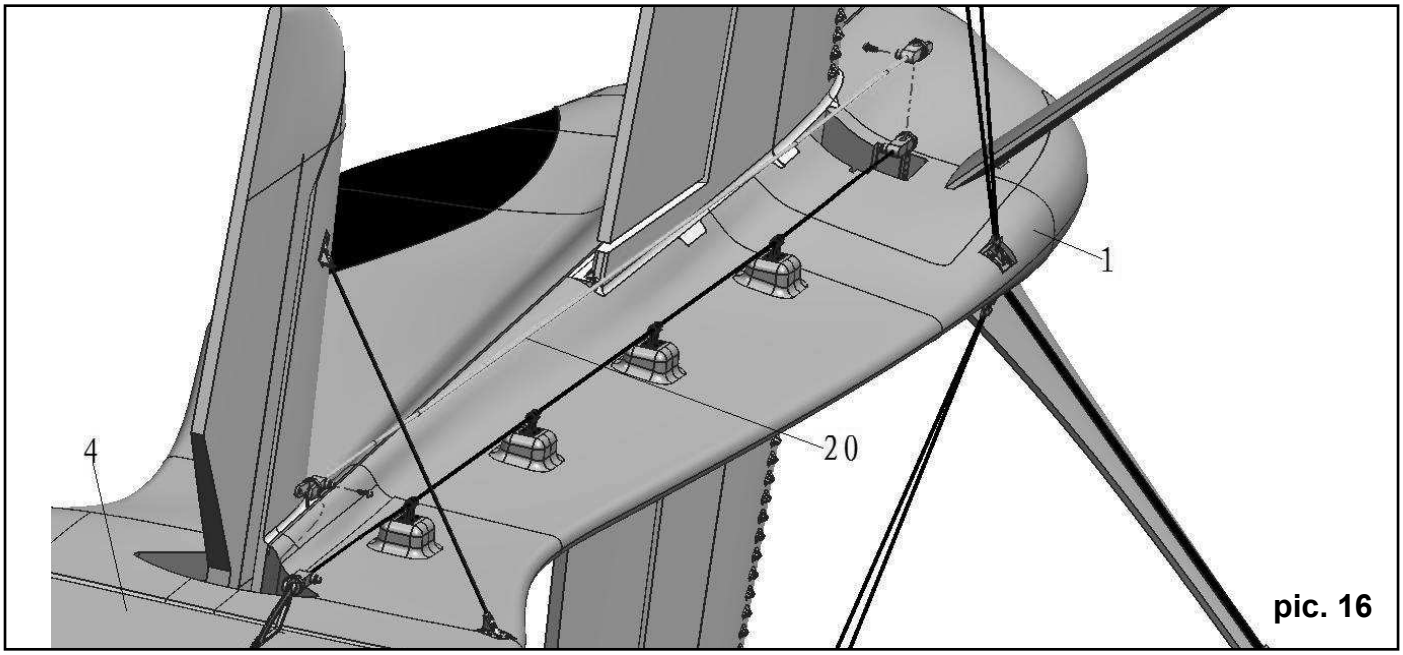


pic. 15



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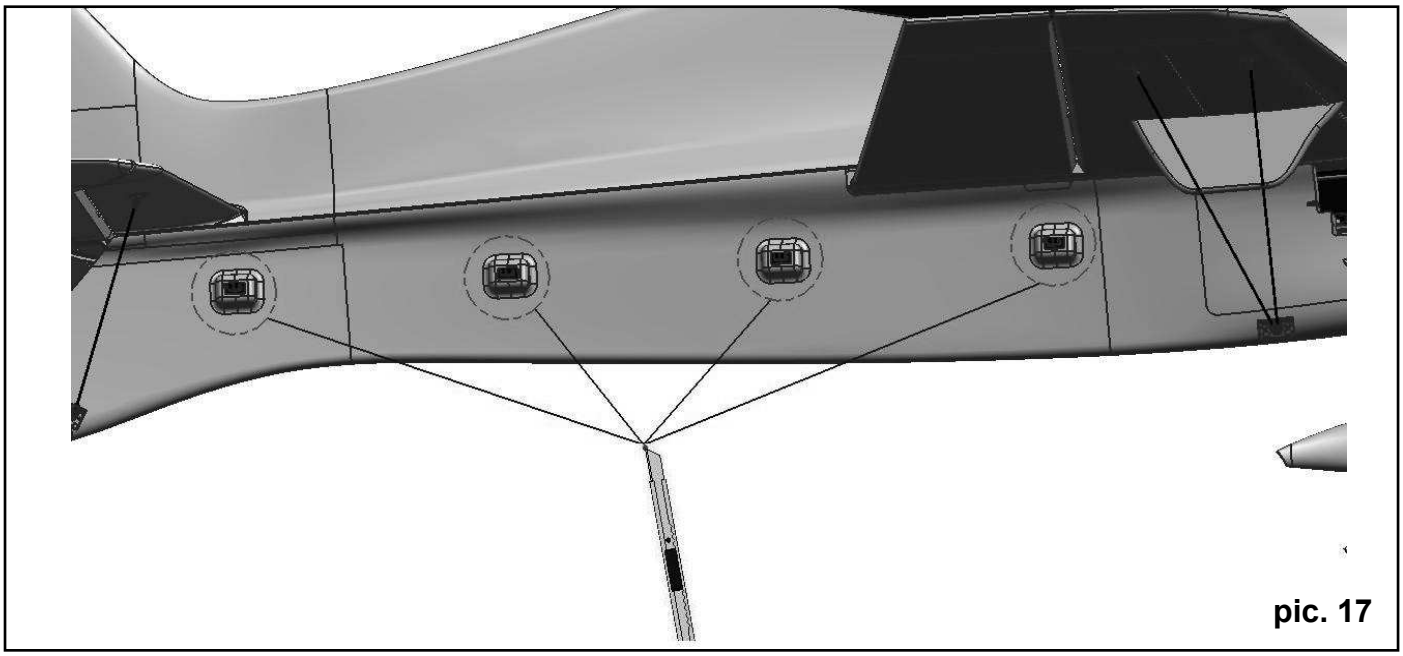
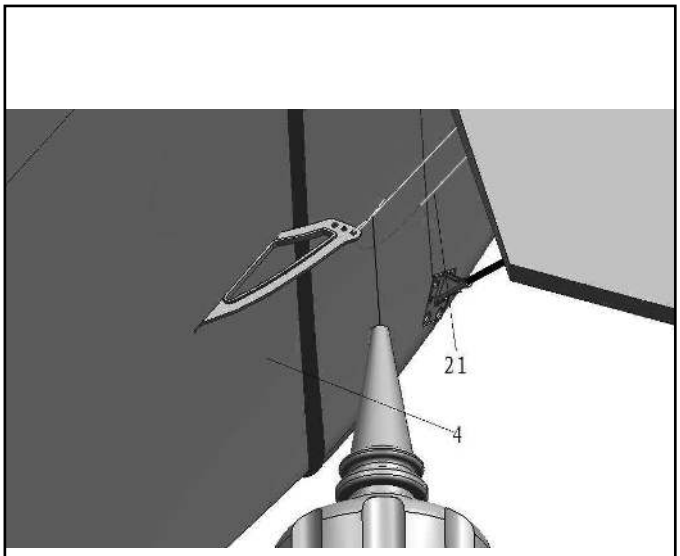


pic. 17

pic. 18



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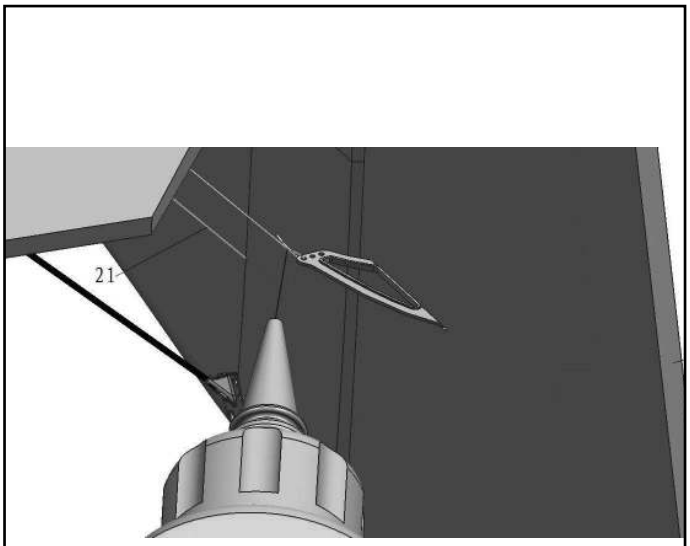

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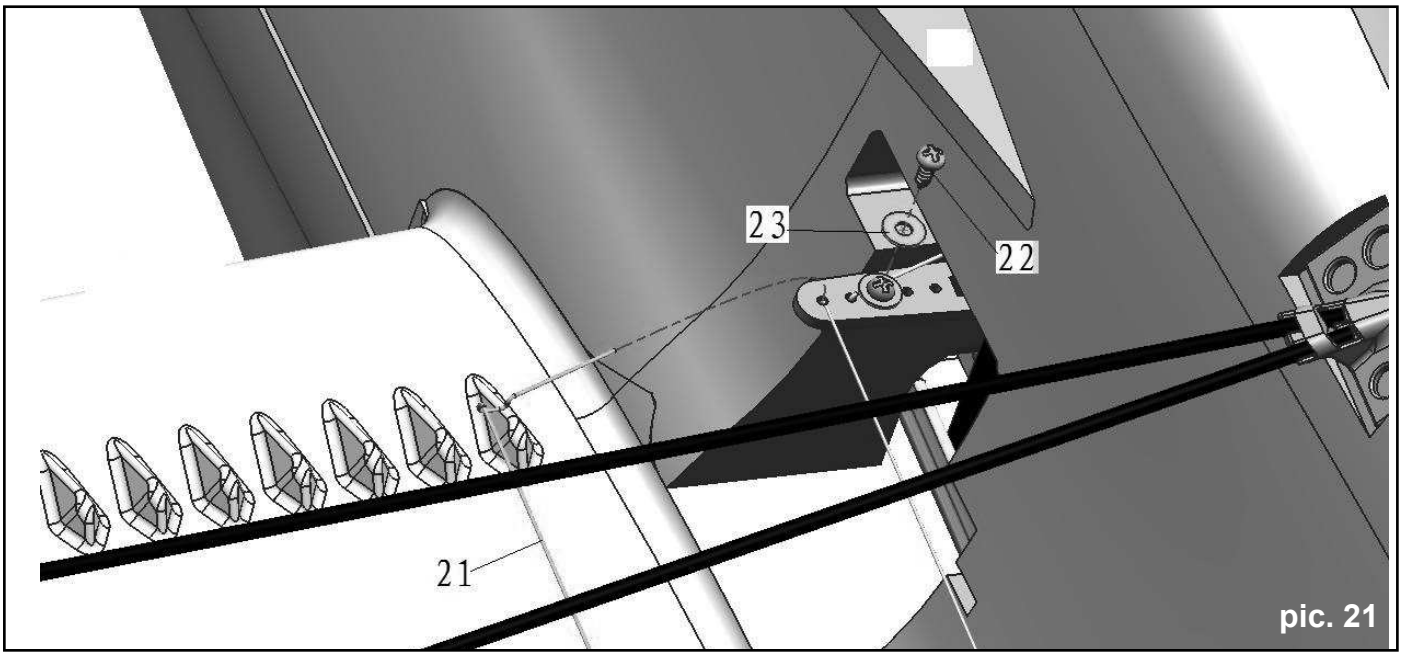

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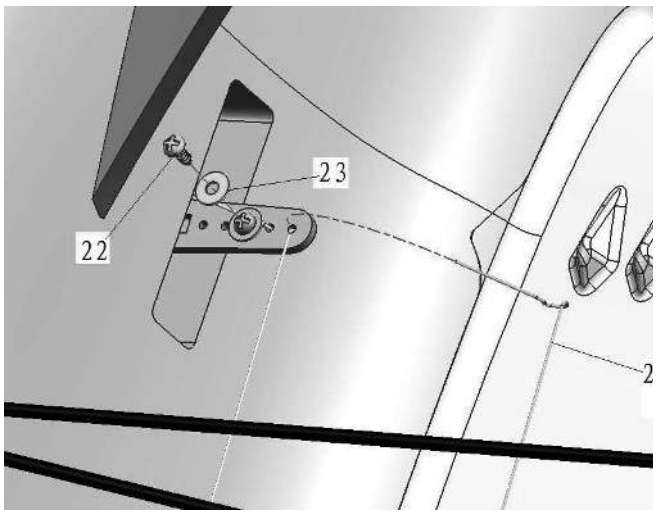

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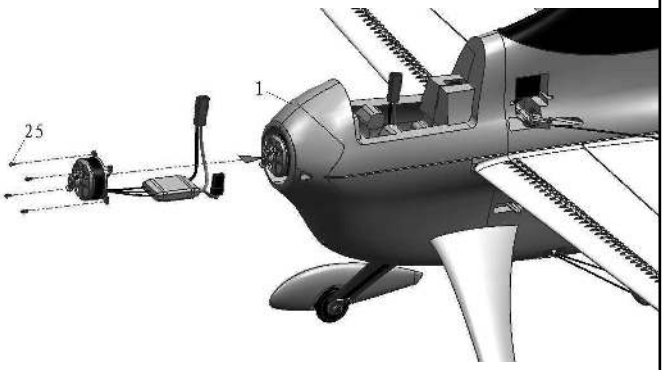
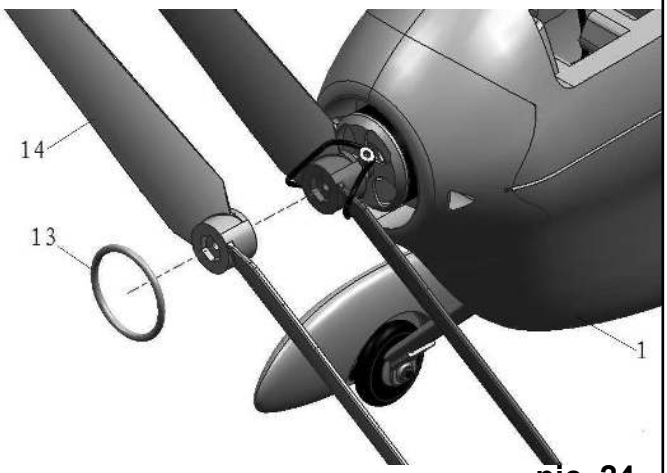


pic. 23



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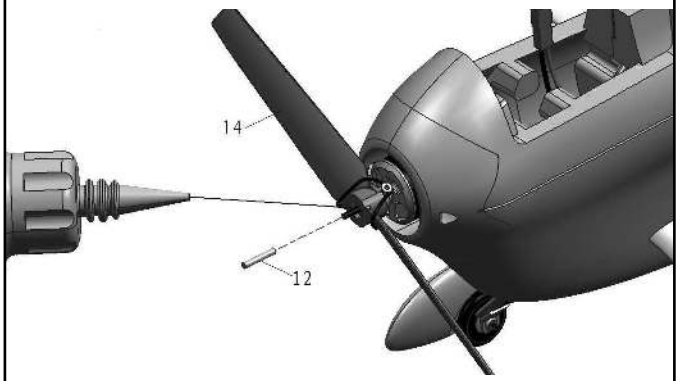
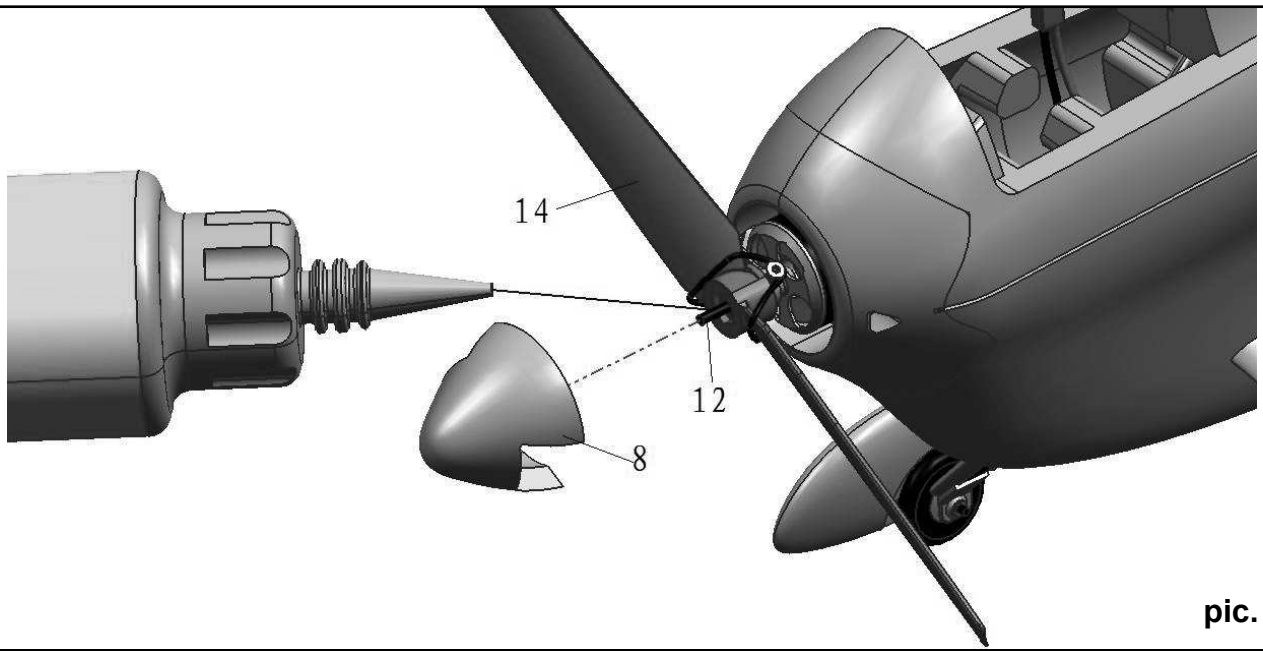
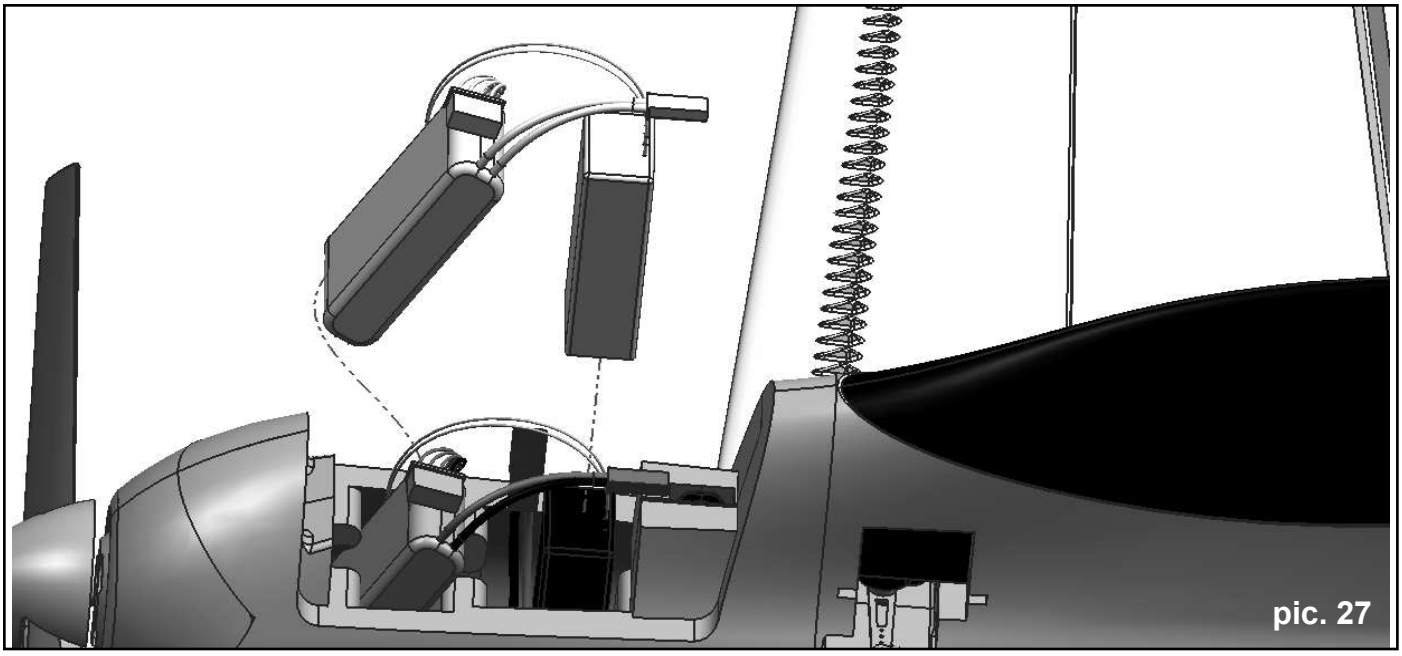


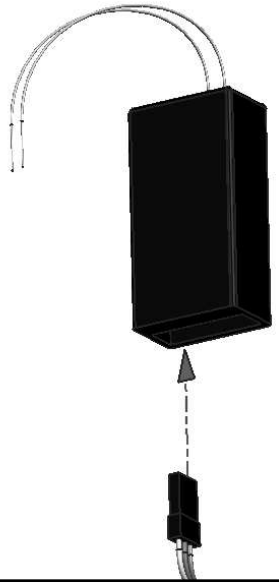
pic. 25



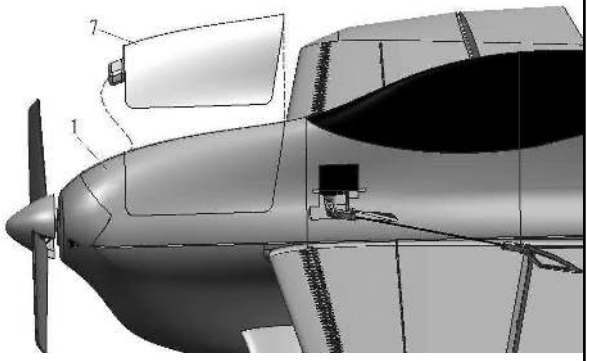
pic. 26



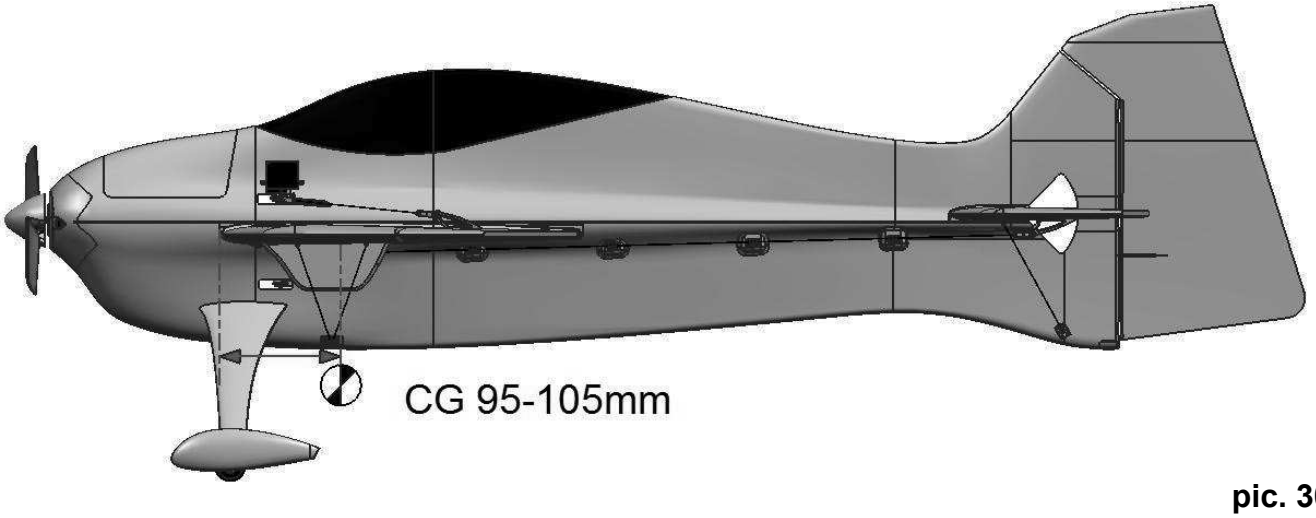
pic. 27



pic. 28



pic. 29



pic. 30

Aviso importante:
¡Este modelo no es de Styropor ™! Por tanto, no debe usar cola blanca, poliuretano o Epoxy para las uniones.
Estos pegamentos solo producen una unión superficial y que se despega fácilmente. Utilice exclusivamente pegamentos con base de cianocrilato de viscosidad media, preferentemente Zacki -ELAPOR® # 59 2727, que está optimizado para las partículas de ELAPOR® y un pegamento instantáneo compatible. Al utilizar Zacki-ELAPOR® podría ahorrarse el uso de activador. Sin embargo, si quiere utilizar otro pegamento y no desea prescindir del activador, deberá aplicarlos sobre el modelo en exteriores, por razones de seguridad. Cuidado al trabajar con pegamentos a base de cianocrilato. Estos pegamentos fraguan en cuestión de segundos, y por este motivo no deben entrar en contacto con los dedos u otras partes del cuerpo. ¡No olvide usar gafas para proteger sus ojos!
¡Mantener lejos de los niños! En algunos puntos también puede usarse cola termo-fusible. ¡Se lo advertiremos adecuadamente en las instrucciones!

Trabajar con Zacki ELAPOR®
Zacki ELAPOR® ha sido desarrollado específicamente para el pegado de nuestros modelos de espuma fabricados con ELAPOR®
Para que el pegado sea óptimo, debe respetar los siguientes puntos:
- Evite la utilización de activador. Con él, la unión se debilita notablemente.
  Ante todo, al pegar grandes superficies le recomendamos dejar secar las piezas durante 24 horas.
- El activador tan solo debería usarse para fijaciones puntuales. Aplique un poco de activador en uno de los lados.
  Deje que se ventile el activador durante unos 30 segundos aproximadamente.
- Para un pegado óptimo, lije suavemente la superficie con un papel de lija (grano tipo 320).

¿Se dobló? – ¡No pasa nada!. En caso de que algo se haya doblado, por ejemplo durante el transporte, se puede volver a enderezar. El ELAPOR® se comporta como si fuse metal. Si lo dobla un poco en el sentido contrario, el material vuelve a su estado normal, manteniendo la forma. Por supuesto, todo tiene un límite - ¡No lo fuerce demasiado"

¿Se dobló? – ¡Ya está!. Si quiere pintar su modelo, aplique una ligera capa de imprimación MPX Primer **# 602700**, como si limpiase su modelo. Bajo ningún concepto **debe aplicar gruesas capas o de manera irregular**, podría estropear su modelo. ¡Se torcerá, se volverá pesado y a menudo hasta frágil! Con una pintura mate conseguirá los mejores resultados.

Características técnicas STUNTMASTER:

Envergadura:	870 mm
Longitud total:	928 mm
Peso:	350 g
Superficie alar:	24 dm²
Carga alar:	14,6 g/dm²
Canales de mando RC:	4
Funciones RC:	Profundidad, dirección, alerones, motor
autonomía de vuelo:	ca. 5 min (3S 450 mAh)

Aviso: ¡Separe las ilustraciones del cuadernillo central!

Le damos la enhorabuena por su nuevo Multiplex STUNTMASTER.

Montaje del conjunto:

Para montar el modelo necesitará las siguientes herramientas:

- Metro plegable
- Destornillador de estrella, pequeño
- Destornillador plano (aprox. 5mm.)
- Cuchilla afilada
- Alicantes de punta
- Zacki Elapor **# 852727**

Compruebe que las piezas enviadas son de su satisfacción con la lista de piezas de la página **44. (Img.01)**

1. Fijación del tren de aterrizaje (Img.02):

Aplique una gota de Zacki en el lado derecho e izquierdo del fuselaje **1** e inserte ambas patas del tren de aterrizaje **10** y **11** en la abertura prevista para ello. Compruebe que el fuselaje quede recto respecto al tren de aterrizaje.

2. Fijación de las alas (Img.03):

Desde el lado derecho, pase el ala **2**, hasta su mitad, a través del fuselaje **1**. Aplique un poco de Zacki en la parte superior e inferior de la zona central del ala.

→Nota: Si aplica el pegamento solo en la parte izquierda del puente central del ala, el pegamento se irá aplicando sobre la superficie total de pegado a medida que vaya insertando el ala.

Termine de insertar totalmente el ala en el fuselaje. Compruebe que el ala queda pegada al fuselaje formando un ángulo recto, las longitudes **A** y **B** deben ser idénticas. El ala tiene que formar en todo momento un ángulo recto respecto al fuselaje. Elimine, si fuese necesario, cualquier sobrante de pegamento con un pañuelo de papel.

3. Fijación del estabilizador horizontal (Img. 4):

Para montar el estabilizador horizontal **3** proceda de manera análoga a como montó el ala. Las dimensiones **C** y **D** deben ser idénticas. Compruebe también aquí la alineación en ángulo recto.

4. Montaje del timón de dirección (Img. 5 & 6):

Comience pegando la pieza **9** al fuselaje **1**. Ahora, pegue las bisagras del timón de dirección **4**en las ranuras preparadas para ello.
→Nota: Para aplicar el pegamento en las ranuras sin que se derrame, apriete la parte delantera de la boquilla del Zacki utilizando unos alicates de punta o planos, de manera que la apertura de la boquilla se vuelva ovalada.
Además, deberá preocuparse de que rebose muy poco pegamento y de dejar un margen de 1mm., aprox., entre el timón y el canto trasero del fuselaje. Debe moverse libremente y con facilidad.

5. Instalación de los servos (Img. 07-09):

Comience retirando la tapa de la batería **7** del fuselaje **1**.

Usando algo de Zacki, pegue el horn de timón **24** en la posición prevista en el lado izquierdo. Coloque el servo de alerones en su encastre y, usando su equipo de radio, póngalo en posición neutra. Atornille el brazo del servo, apriete bien el tornillo. Pegue el servo, usando un poco de Zacki en las lengüetas, en la abertura prevista del fuselaje.

Proceda de manera análoga con el servo del timón de dirección y el de profundidad.

Lleve todos los cables de servos a la parte delantera del fuselaje.

6. Arriostrado del ala y del estabilizador horizontal (Img. 10-12):

Pegue los apoyos de las riostras **5** & **6** en las posiciones indicadas de la parte inferior del ala. Ahora, pegue las riostras 16 (delante, aprox. 1,3x 300 mm.) y **17** (detrás, aprox. 1,3x 305 mm.). Asegúrese de que las riostras se pegan sin estar en tensión para evitar que las alas se tuerzan y que se sigan manteniendo en ángulo recto respecto al fuselaje. Fije las riostras también a los puentes que van desde el plástico a las piezas de carbono usando unas gotas de Zacki.

Para montar las riostras del estabilizador horizontal **15** (aprox. 1,5x130 mm.) proceda de manera análoga a como montó el ala.

7. Instalación de las varillas de los timones (Img. 13-22):

Alerones:
Enganche los retenes de las varillas de trasmisión **18** (aprox. 1,3x 130) en el agujero más externo del horn del servo de alerones. Asegúrelos colocando un tubito de goma para evitar que se desenganchen sin querer. Enganche los retenes de varilla en el agujero superior de la palanca de alerones y fíjelos también usando un trocito de tubo de goma. Encienda su equipo de radio y ponga el servo de alerones en posición neutra. Ahora, use un destornillador para ajustar con los tornillos la longitud de los retenes de varilla, de modo que ambos alerones queden en posición neutra. Apriete bien los tornillos. Compruebe el funcionamiento de la transmisión de los alerones y que pueden desarrollar un recorrido para 3D de unos 95 mm. Arriba / 75 mm. Abajo. En caso necesario, retire un poco de espuma del fuselaje de manera que la varilla pueda moverse libremente.

Profundidad:
Pase la varilla de transmisión del timón de profundidad **19** (Aprox. 1,3x 510 mm.) por los soportes de plástico negro en la parte izquierda del fuselaje. Enganche la varilla al timón de profundidad usando el agujero más externo. Conéctela al brazo del servo de manera que la distancia al eje central del servo sea de **15 mm**. Fije la varilla y las transmisiones de manera análoga a como fijó los alerones.

Dirección:
Aquí hay dos posibilidades, o transmisión por varilla o por cable.

Ventajas de la transmisión por varilla:
- Más fácil de montar
- Independiente de la temperatura
- Más fácil de ajustar

Ventajas de la transmisión por cable:
- Transmisión óptima de potencia
- Más ligera
- Sin holguras

A fin de cuentas ambas son posibles y será una cuestión de gusto personal por cual de ellas se decidirá, estando incluidas todas las piezas necesarias para ello en el kit.

Dirección con opción de varilla (Img. 16)
Proceda de manera análoga como lo hizo con los alerones o el timón de profundidad. Enganche la varilla de transmisión del timón de dirección **20** (aprox. 1,3 x 620 mm.) en el agujero exterior del horn del timón y en el segundo agujero desde afuera en el brazo del servo. Fije la varilla de transmisión como se describió anteriormente y apriete los tornillos.

Timón de dirección con opción de cable (Img. 17-22):
Use una cuchilla afilada y limpia para costar los soportes de plástico de la mitad derecha del fuselaje que están pegados a la espuma. Enhebre el cable de transmisión **21** en el agujero externo del horn del timón de dirección y anúdelo de modo que el nudo quede a unos 8 mm. del horn de dirección. Asegure el nudo con unas gotas de Zacki.

Tire del cable hasta llegar al brazo del servo y córtelo dejando unos 10 cm. de sobrante. Páselo, como se muestra en la imagen **21**, por el agujero exterior o el segundo más externo del brazo del servo. Use su equipo de radio para colocar el servo en posición neutra y fije el timón de dirección en posición neutra con unas tiras de cinta adhesiva.

Apriete el tornillo **22** (1,4x6 mm.) y la arandela **23** (Ø5 mm.) más o menos hasta la mitad en el tercer agujero, desde afuera, y anude el cable alrededor. Fije el cable al tornillo usando algo de Zacki. Cuando el tornillo vuelva a apretarse, el cable se irá tensando. Proceda en el otro lado de manera análoga y ajuste la transmisión de manera que el brazo del servo y el timón queden en posición neutral.

8. Montaje del motor y de la hélice (Img. 23-26):

Pase el regulador a través de la cuaderna parallamas y atornille el motor con los tornillos **25** (2x5 mm.). Fije al motor la hélice **14** con el anillo adaptador **15**. Pegue el perno de centrado **12** con un poco de Zacki a la hélice y use un poco de Zacki o pegamento de contacto para pegar el cono.

9. Instalación del receptor y las baterías (Img. 27 & 28):

Conecte todos los canales de los servos al receptor según la asignación de su emisora y póngalos como se indica en la imagen **27**. Ponga la batería en la posición delantera.

10. Equilibrado (Img. 29 & 30):

Coloque la tapa de la batería y equilibre el modelo de modo que el **centro de gravedad** quede en la zona de **95 - 105 mm.** medidos desde el borde de ataque del ala.

11. Recorridos recomendados de los timones

Para el programa de acrobacia clásica:

Timón de dirección: derecha/izquierda 80 mm. 50% EXPO
Timón de profundidad: Arriba 40 mm, abajo 40 mm. 40% EXPO
Alerones: Arriba 35 mm, abajo 35 mm. 40% EXPO
Mezclador (lineal): 2% de alerones para compensar dirección
→Es decir: Con toda la dirección a la derecha, el alerón manda un 2% a la izquierda.

Para acrobacia 3D:

Timón de dirección: derecha/izquierda: 110 mm., 60% EXPO
Timón de profundidad: arriba / abajo: Todo lo que de 60% EXPO
Alerones: Arriba 95 mm., abajo 75 mm. 60% EXPO
Mezclador (lineal): 5% de alerones para compensar dirección
→Es decir: Con toda la dirección a la derecha, el alerón manda un 5% a la izquierda.

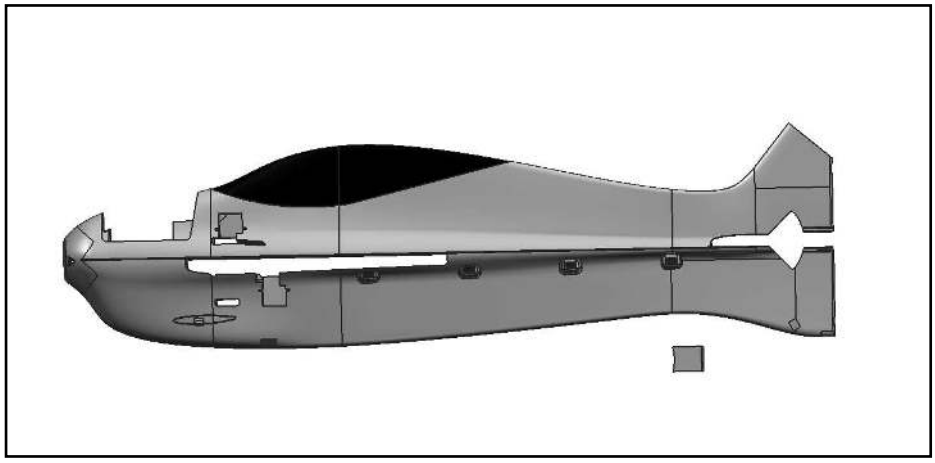
Lista de partes STUNTMASTER STUNTMASTER# 264290 / # 264291:

Ordinal	Pieza	Descripción	Material	Dimensiones
1	1	Fuselaje	Elapor	Pieza prefabricada
2	1	Alas	Elapor	Pieza prefabricada
3	1	Estabilizador horizontal	Elapor	Pieza prefabricada
4	1	Estabilizador vertical	Elapor	Pieza prefabricada
5,6	2	Apoyos de las riostras	Elapor	Pieza prefabricada
7	1	Tapa de la batería	Elapor	Pieza prefabricada
8	3	Cono	Elapor	Ø 40mm.
9	1	Pieza de relleno del timón de dirección,	Elapor	Pieza prefabricada
10	1	Pata izquierda del tren de aterrizaje	Elapor	Pieza prefabricada
11	1	Pata derecha del tren de aterrizaje	Elapor	Pieza prefabricada
12	2	Perno de centrado del cono	Fibra de carbono	2,5x13
13	2	Junta tórica para montar la hélice	Goma	Ø 17mm.
14	1	Hélice GWS EP	Plástico	9x5”
15	2	Anillo adaptador de hélice	Aluminio	Ø 10mm.
15	2	Riostras del estabilizador horizontal	Fibra de carbono,	Aprox. 1,5x130mm.
16	2	Riostras delanteras del ala	Fibra de carbono,	Aprox. 1 x 300mm.
17	2	Riostras traseras del ala	Fibra de carbono,	Aprox. 1 x 305mm.
18	2	Varilla de transmisión de alerones	Fibra de carbono,	Aprox. 1,3 x 130mm.
19	1	Varilla de transmisión del timón de profun.,	Fibra de carb.,	Aprox. 1,3 x 510mm.
20	1	Varilla de transmisión del timón de dirección,	Fibra de carb.,	Aprox.1,3x620mm.
21	1	Cable para transmisión del timón de dirección,	Kevlar,	Aprox. 3,3 m. de largo
22	4	Tornillos	Metal	1,4 x 6 mm.
23	4	Arandelas	Metal	Ø5 mm.
24	1	Horn de alerón izquierdo	Plástico	Pieza prefabricada
24	3	Retén de varilla	Plástico	Pieza prefabricada
25	4	Tornillos para fijar el motor	Metal	2 x 5 mm.
26	1	Instrucciones de montaje STUNTMASTER	Papel	Din A4
27	1	Hoja de reclamaciones para modelos	Papel	Din A5

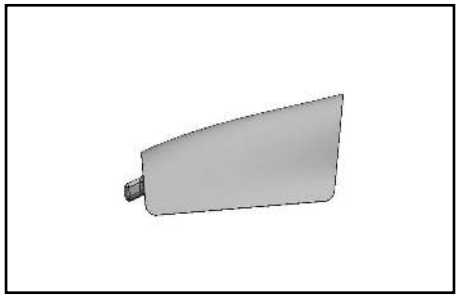
Ersatzteile / Spareparts

 # 22 4376
Rumpf (Ohne RC, Akkudeckel)

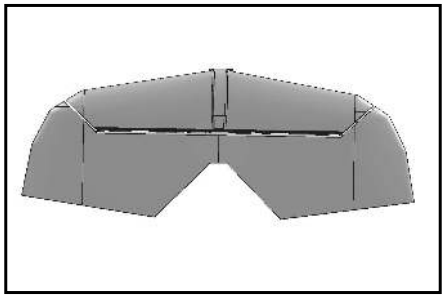
Fuselage (without electrics, battery cap)



 # 22 4377



 # 22 4380

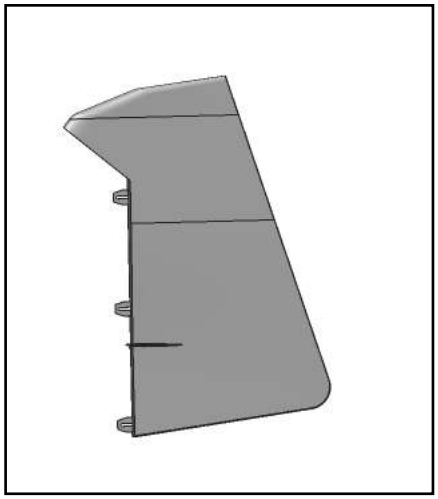


 # 22 4377
Akkudeckel /
Battery cap

 # 22 4380
Höhenleitwerk
Elevator

 # 22 4381

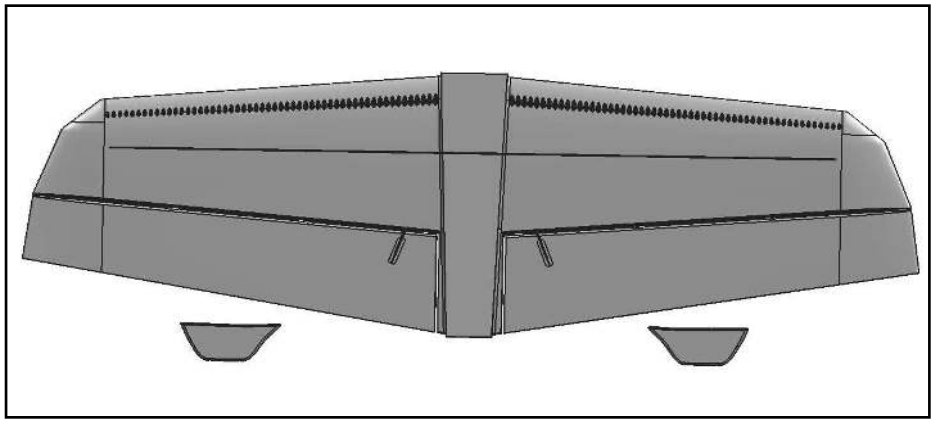
 # 22 4378



 # 22 4381
Hauptfahrwerk /
Main landing gear

 # 22 4378
Seitenleitwerk / Rudder

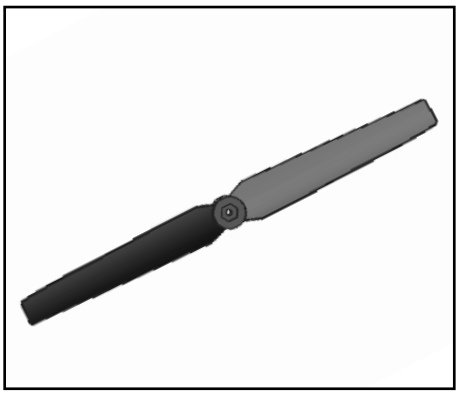
 # 22 4379
Tragflächen / Wings



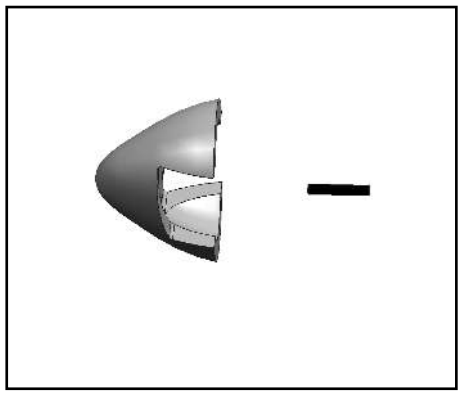
 # 73 2505
Propeller GWS EP-9x5“

 # 22 4382
Spinner

 # 73 2505



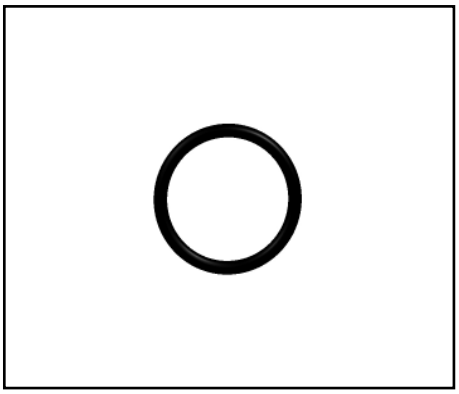
 # 22 4382



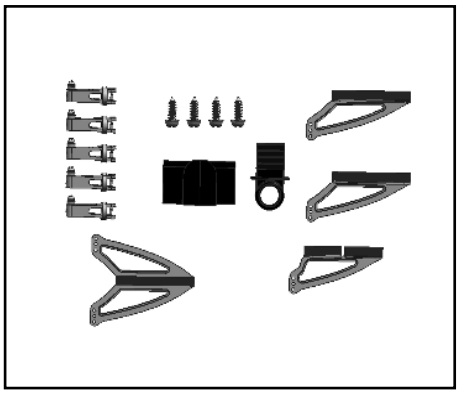
 # 22 4386
O-Ringe für Propellermontage
(5 Stk.) / O-rings

 # 22 4385
Kleinteilesatz / Small part set

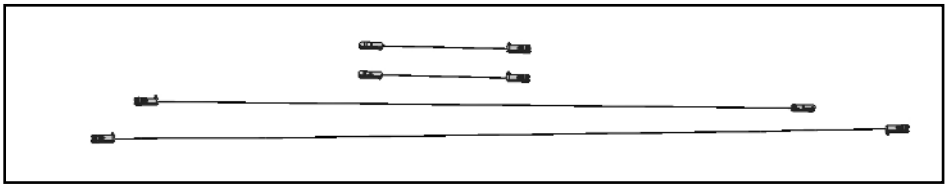
 # 22 4386



 # 22 4385



 # 22 4383
Anlenkungssatz / Linkage set



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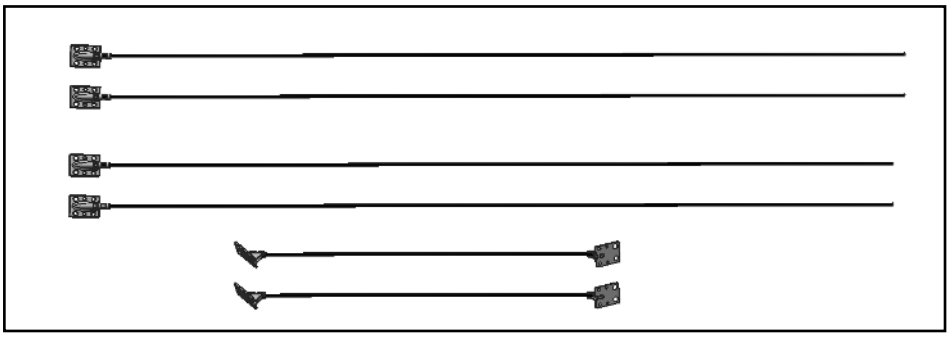
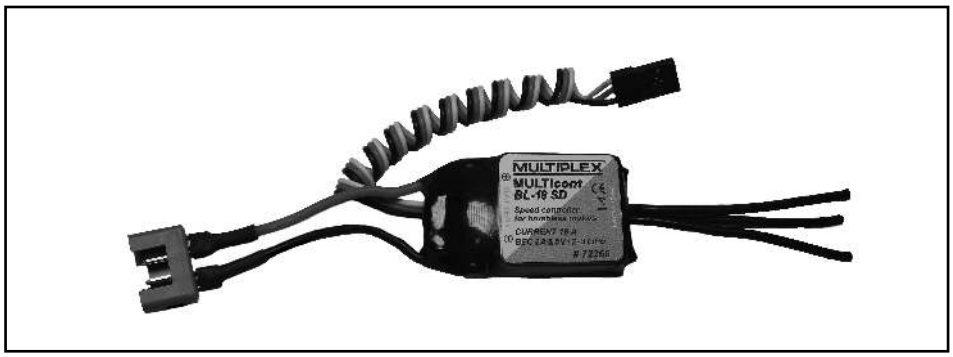
Abtrebungssatz / Bracing set

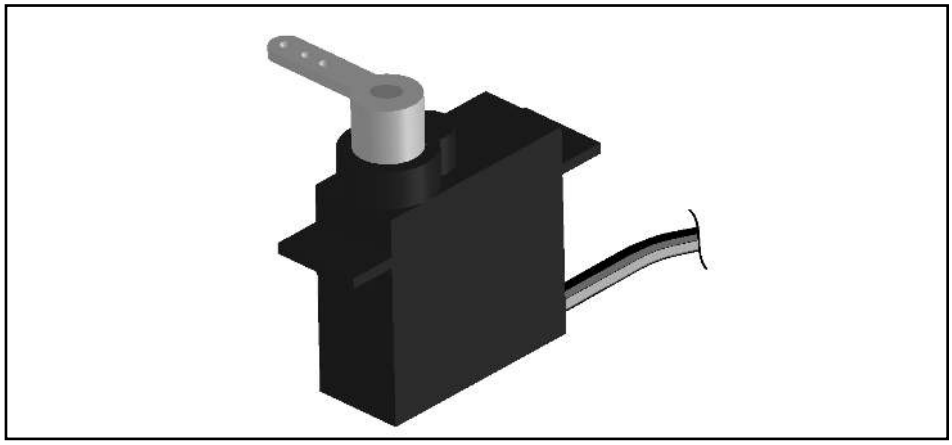


 # 33 3119
Motor
PERMAX BL-O 2206-1050

 # 7 2266
Regler / ESC
MULTIcont BL-18 SD



 # 6 5113
Servo MS-12016



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