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### **Preface**

We congratulate you and thank you for choosing a high-performance flight model from Femo. Our flight models are manufactured in the 'Prepreg-autoclave-technology' in Germany. Both the strength values and the surface quality are unique. The completion of the models relates only to the installation and connection of the receiver and the receiver – battery. The entire harness is already installed. In order to ensure safe use, Please read this manual carefully.

Further information about our products and application or operating questions can be obtained from:

Internet: <a href="www.femo-design.de">www.femo-design.de</a>
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#### Safety instructions

Check the device after unpacking. Do not use in case of transport damage. Report the damage in writing, otherwise the warranty claim is void. The appliance must be used in accordance with the enclosed operating instructions.

#### Fire Hazard!

There is a risk of fire for lithium-ion batteries.

#### Danger of injury!

As soon as the drive is under current, there is a risk of injury due to sudden rotation of the propeller.

## Warranty

We provide a 24-month warranty on this product. All other claims are excluded. This applies in particular to claims for damages caused by failure or malfunction. We assume no liability for personal injury, damage to property and its consequences arising from our delivery or work (except in case of gross negligence or intent), because we cannot control the handling and application.



# 1. Assembly

The center of gravity is measured at the root rib, it's approximately 60mm behind the nose strip and can be adjusted according to personal needs via the ballast tube in the vertical tail.



Bring the receiver antennas to the outside of the red mark.

The receiver is fixed as shown on the Servoplatine. Then the board is carefully inserted, the fork heads are mounted, it must be ensured that the fork with stud is located on the underside, so that the drilling of the rods in the guide carrier is aligned with the tail!

Now the PCB can be screwed with a 4x m2 countersunk head screws.

Always move the rudder on and off the tail so that the steering is not jammed. In the beginning this is a little tight, it runs over time.

The Assembly on the flight site is carried out in the following order

- 1. Insert the tail, ensure that the balance weight per side for the Motornase depending on the operation is on or expanded. When sliding, move the elevator slightly so that the Ruderanlenkung easily runs into the linkage. Keep the tail on the tip so that no dents are pressed into the Rohazellkern of the tail while holding it down. The tail is not locked in place after it has been plugged in.
- 2. Push the surface connector into a surface, place the surface screw, then pull the connector out until it stops and tighten the surface screw. Insert the fuselage, push the second surface, connect the surface Plug and fix the surface screw. Then squeeze the surfaces together and tighten both surface screws.
- 3. Push the surface connector into a surface, place the surface screw, then pull the connector out until it stops and tighten the surface screw. Insert the fuselage, push the second surface, connect the surface Plug and fix the surface screw. Then squeeze the surfaces together and tighten both surface screws.



#### 2. Motor Unit

The e-nose has the following components installed:

- Motor Tenshock EDF TS-EZ1520 11T 4pol 3880KV with Micro Edition 5:1NL/T
- Speedcontroller YEP 80Ah
- TATTU 1400mAh 11.1V 45C 3S1P Lipo Battery
- RFM 15x13S
- Femo 'Versatzmitnehmer and Spinner'

Please observe the operating and maintenance instructions of the respective manufacturer.

The speed controller is already programmed.

Before inserting the Lipo, hold the receiver cable in the direction of the right and the power cable left in the direction of flight. Insert the lipo, then connect it and push it completely up to the light stop. Do not push the receiver cable.

Power cable and Balancerkabel need to be plugged in before the lipo.

# 3. Rudder Settings and Servos

All servos are already installed in Femo flight models. The main wing rudders are guided by RDS systems. The entire deflection is inside. In case of a servo damage this can be exchanged via a prepared servo cover!

Please reduce the servo at your control first, then set the middle position. Then raise the servo again to get the necessary rudder swings. In order not to burden the servo unnecessarily, we recommend to prevent servo movements starting from the rudder during transport and storage. Our area scissors are ideal for this purpose. In the current versions, KSTX08 v 3.0 is installed these servos can be directly be operated with 2s lipos.

When using the e-nose and the nose of the glider, it is advisable to create two model memories. Since the centre of gravity is not 100% identical due to the nasal change.



# **Rudder Settings and Servos**

# **Settings**

+ means "flap/rudder Down"
- means "flap/rudder up"
ELEV = Elevator
AILE = Aileron
WK = Flap

## Allgemeine Rudereinstellungen:

WK: +3mm / -5mm (measured inside)
AILE: +4mm / -10mm (measured outside)

ELEV: + / - 5mm

### Speed:

WK: -1mm AILE: -1mm

## Thermik:

WK: +2mm AILE: +1mm

# Snapflap:

WK: +3mm AILE: +3mm

### **Butterfly:**

ELEV compensation: +1,5mm WK: +16mm (measured inside) AILE: -10mm (measured outside)

(At butterfly, the differentiation reduction should be used to have sufficient QR-rash.)



# 6. Operation:

The flight model is to be operated on a suitable flight ground. In order to ensure safe operation, pre-flight inspection is to be carried out before each flight.

The following points should be checked and fulfilled:

- 1. Correct assembly.
- 2. Fixed seat of all components.
- 3. All rudders are free-of-charge.
- 4. Correct model memory and rudder occupancy.
- 5. Correct center of gravity.
- 6. Power supply sufficient.

# 7. Cleaning and care:

In order not to damage the surfaces, aggressive detergents such as acetone should not be used. Alcohol or commercial vehicle paint cleaning and care products are suitable. The carbon fiber surface is temperature insensitive to 90 °c, however it is recommended to protect the model from direct sunlight as the model can heat up very strongly and the electronics can get damaged.