SAFETY NOTES

- Radio controlled (R/C) helicopters are no toys! The rotor blades rotate at high speed and pose potential risk. They may cause severe injury due to improper usage. It is necessary to observe common safety rules for R/C models and the local law. You can gather information from your local R/C model club or from your national modelers association.

- Pay attention to your own safety and the safety of other people and property in your vicinity when using our product. Always fly in areas away from other people. Never use R/C models in close proximity to housing areas or crowds of people. R/C models may malfunction or crash due to several reasons like piloting mistakes or radio interference, and cause severe accidents. Pilots are fully responsible for their actions, and for damage or injuries caused by the usage of their models.

- Please read the following instructions thoroughly before the first use of your MICROBEAST PLUS and setup the system carefully according to this manual. Allow sufficient time for the setup procedure and check each step carefully. Watch for a mechanically clean and proper build of your helicopter. A wrong system setup can lead to a serious accident and damage to the model.

- Radio controlled (R/C) models consist of several electrical components. It is therefore necessary to protect the model from moisture and other foreign substances. If the model is exposed to moisture this may lead to a malfunction which may cause damage to the model or a crash. Never fly in the rain or extremely high humidity.

- When operating the helicopter with a MICROBEAST PLUS ensure there is a sufficiently large and stable receiver power supply. Because of the direct coupling of the rotor blades to the servos, without the use of a flybar mixer, the servos are exposed to increased actuating forces. In addition, because of the intermediary electronic gyro system, the servos are driven more often than with traditional use. These factors can make the power consumption increase a lot compared to a flybar helicopter. When the supply voltage falls below 3.5 volts for a short amount a of time, the system will power off and reboot. In this case a crash of the helicopter is unavoidable.

- Do not expose the MICROBEAST PLUS system to extreme variations in temperature. Before powering up the system, wait some time so that the electronics can acclimatize and any accumulated condensation is able to evaporate.

- The sensors of MICROBEAST PLUS consist of highly sensitive electromechanical components. These can be damaged due to moisture or mechanical or electrical impact. Do not continue using this product, if it has been exposed to such influences, e.g. due to a crash of the model or due to overvoltage caused by a defective receiver power supply. Otherwise a failure may happen any time.

- When operating electric helicopters make sure that the electric motor cannot start inadvertently during the setup procedure. Particularly pay attention if using a single-line receiver and if the ESC is connected directly to the MICROBEAST PLUS. We recommend disconnecting the electric motor from the ESC during the setup procedure. Prior the first usage please slide the motor/pinion away from the main gear, then check that the motor does not to start inadvertently when the receiver is switched on.
• When operating the RPM Governor feature of MICROBEAST PLUS it is essential to ensure that the motor cannot start by accident when making adjustment or performing preparations to start the engine. Carefully read this manual and make sure you fully understand how the RPM Governor feature is operated before making any adjustments. Also make sure the motor does not start when the radio link is interrupted or when you switch on the transmitter initially. With electric driven models do not dock the motor to the main gear unless all necessary adjustment procedures have been finished. Always maintain sufficient safety distance to the motor and other rapidly rotating components of the helicopter.

• MICROBEAST PLUS with AttitudeControl can be used as a flying aid for beginners by limiting the reaction of the helicopter to stick inputs and by stabilizing the helicopter with an electronic control loop. However, this does not provide that the helicopter can always be flown safely! By incorrect control inputs the helicopter still may crash or be placed in a position in which the pilot becomes disoriented even when using AttitudeControl. In addition, the helicopter can drift due to external influences and it is not guaranteed that the artificial horizon of the device can stabilize the helicopter at any time and recover from any orientation. Influences such as temperature fluctuations or vibrations may cause incorrect results and distort the position calculation of the system in consequence. There is no guarantee that the system will always work correctly. Only the pilot is responsible for the control of the helicopter and thus also for the use of the system. Note that the system for technical reasons will not hold the helicopter absolutely to the point. The unstable tendency of a helicopter will cause the model to fly in a certain direction even when using AttitudeControl. External influences such as wind can further strengthen this effect. In addition measurement inaccuracies of the sensors can distort the position determination slightly. You must always be able to turn off the system immediately and be able to take over full control of the helicopter.

• We suggest you to seek the support of an experienced helicopter pilot before you undertake the first flight of your model. Additionally, flight training with a R/C simulator can help make flying easier and more enjoyable. Ask your local dealer if you need technical support or if you observe problems during the usage of our system.

• AttitudeControl can help to facilitate flying of model helicopters by briefly passing over control to the system if the pilot becomes disoriented. By using the built-in artificial horizon the helicopter can be brought to a nearly horizontal position so that the pilot gains time to reorient. Thus, there can be no assurance that the model is saved from a crash in general. Depending on the current attitude and the speed of the model and depending on how fast the AttitudeControl is activated, the model may crash before or while the system tries to recover. In addition, the helicopter can drift due to external influences and it is not guaranteed that the artificial horizon of the device can stabilize the helicopter at any time and recover from any orientation. Influences such as temperature fluctuations or vibrations may cause incorrect results and distort the position calculation of the system in consequence. Strictly observe the general safety rules for dealing with RC models and do not totally rely on the system. The pilot is responsible for the control of the helicopter and thus also for the use of the system. You must always be able to turn off the system immediately and be able to take over full control of the helicopter.
Dear customer,

Thank you for purchasing our product.

MICROBEAST PLUS is a high-end gyro system for RC helicopters that has been developed in Germany using latest technology and setting high standards. It can be used with many different types of helicopters like 3D aerobatic helis, F3C competition helicopters as well as scale helicopters with 2 or more rotor blades. The system comes with BASIC flybarless stabilization functionality and can be upgraded by paid update to the PROEDITION. This enables additional features like AttitudeControl for recue bailout or constant leveling and a feature called „Bank Switching“ which allows to switch between parameter presets in flight to serve different flight conditions or flying styles.

To setup MICROBEAST PLUS there is no need for any additional devices. All you need is your radio system and your helicopter. Thanks to the well proven „EasySetup“ concept you can do all the necessary adjustment directly at the device and you’re ready for take off within a few minutes.

This Quickstart Guide is a clearly arranged guide that will lead you step-by-step through the basic flight setup. Please follow this guide carefully and make sure to read the attached safety notes. For a detailed instruction manual and further details, tips, tricks and notes about the product please visit WIKI.BEASTX.COM

Designed for STUDIOX

If you like to get more insight into the system and like to have a more visualized type of setup you can use the StudioX App for PC/mac or StudioXm for your smartphone/tablet in combination with the USB2SYS interface (PC/mac) or BLE2SYS interface (smartphone/tablet) (optional available). These apps are the source to get even more out of your device like saving/restoring parameters, firmware updates, loading preset heli configurations and making advanced adjustment to fully customize your MICROBEAST PLUS to your needs.

StudioX can be downloaded from: STUDIOX.BEASTX.COM

This guide is intended to be used with MICROBEAST PLUS firmware version 5.0.x only! After power up when the Status-LED lights red, for a few seconds in the left row menu LEDs A and C indicate major version „5“ . In the right row no LED lights up.
1. HARDWARE INSTALLATION

You can position MICROBEAST PLUS flat or upright on the helicopter. The large socket must point to the front or to the rear of the helicopter. The small white socket must be aligned with the longitudinal axis.

The sensor axis (housing edges of the device) must be aligned exactly parallel to all three rotation axis of the helicopter. However, it is allowed to position the device offset from the rotation axis.

In summary there are 8 mounting orientations possible:

1. flat, sticker on top, socket pointing to front
2. upright, button up, socket pointing to front
3. flat, sticker showing to ground, socket pointing to front
4. upright, button down, socket pointing to front
5. flat, sticker on top, socket pointing to rear
6. upright, button up, socket pointing to rear
7. flat, sticker showing to ground, socket pointing to rear
8. upright, button down, socket pointing to rear

Use one of the supplied 3M gyro pads to stick the device to your helicopter. The device housing must not directly touch the chassis of the helicopter. When connecting and laying out the servo and receiver wiring later onwards please make sure the wires do not pass tension to the MICROBEAST PLUS. It is not recommended to bundle or tie down the leads close to the MICROBEAST PLUS device.
2. CONNECTING THE RECEIVER

The assignment of functions to the radio channels is mentioned in the manual of your radio system. Also, you can find out the function assignment by checking your transmitter's servo monitor. The connectors of MICROBEAST PLUS are assigned to the functions as follows:

**AIL|CH5 = Aileron, ELE|DI1 = Elevator, RUD (orange wire) = Rudder, PIT (red wire) = Thrust, Aux (brown wire) = Gyro gain**

The wires for aileron and elevator additionally transfer the power between MICROBEAST PLUS and receiver.

**Using a Single-Line receiver** all channels/functions are transferred by one single connection wire. This allows to use even more than 5 channels, i.e. for controlling the headspeed Governor, AttitudeControl function and additional output channels.

**Supported receivers/transmission protocols:**
- SRXL: JR® XBus (Mode B), Multiplex® SRXL (V1+V2), Jeti® UDI, Graupner/SJ® HOTT SUMD, Spektrum® SRXL
- Futaba® SBUS
- Remote satellite (Spektrum® DSM2/DSMX, JR RJ-01 DMSS)
- Jeti® EXBUS
- ALIGN/FlySky iBus
- PPM serial signal (SPPM)

**Using a single remote satellite is only recommended for 450 size helis or smaller!** For larger helis please use a SRXL compatible Single-Line receiver for your radio brand.

Always make sure the power supply is stable and dimensioned sufficiently for the intended application. If possible always connect the power source directly to MICROBEAST PLUS (not at port [AUX|PIT|RUD]) but additional supply cables can be plugged into free receiver ports, too. Especially when using standard size servos it is recommended to use more than one power supply cable in parallel to preserve a stable voltage and to reduce power loss due to connection resistance.
3. PREPARING YOUR TRANSMITTER

Create a new helicopter model memory in your transmitter that supplies different flight modes for controlling throttle, pitch and the tail gyro gain in different flight situations.

You mustn't use any mixing functions on the output channels! Especially it is not allowed to use mixing functions for the swashplate servos. Deactivate all output channels that are not used. In the basic configuration we only need pitch, aileron, elevator, rudder, throttle and one channel to adjust the tail gyro gain.

Each control function must exactly control one output channel. Initially the servo throws must be set to 100% and all trims and sub trims must be zero. For the basic setup do not change the pitch curves yet. The throttle curves and throttle servo settings can be adjusted as necessary for this model in case you do not intend to use the internal Headspeed Governor function of MICROBEAST PLUS.

Only the pitch channel must be controled when moving the thrust stick. The same applies to aileron, elevator and rudder.

⚠️ With electric driven models remove the motor from the main gear when performing the basic setup for safety reason! Additionally deactivate the throttle by using the „Throttle HOLD“ switch, so the motor won't start to turn when moving the thrust stick.

When flying a nitro or gasser heli remove the servo horn from the throttle servo before first power up to prevent jamming the servo due to wrong servo setup.
To initiate bind procedure on a single Spektrum® remote satellite connect the Spektrum bind plug to [SYS] port. When using a DSM2 remote satellite, push and hold the button and turn on power while still holding the button down. The LED on the satellite will flash together with Menu LED A on the MICROBEAST PLUS. When binding a DSMX remote satellite do not touch the button but only power on the device. The LED on the satellite will flash together with Menu LED B. Initiate the bind procedure on the transmitter. Power off and remove the bind plug when finished successfully.

To bind the JR® RJ01 remote satellite initiate the bind procedure on the transmitter and power on the MICROBEAST PLUS. The remote satellite will bind instantly. Connecting a bind plug or similar is not necessary.

4. RECEIVER SETUP

To enter RECEIVER MENU MICROBEAST PLUS must be switched off completely. Push and hold the button before and while powering on. The menu LEDs will start to cycle from A to N. Now you can release the button.

Make sure your transmitter is on and sending signals to the receiver. At menu point A you can start automatic receiver type detection by briefly pressing the button once. The color and state of the Status LED indicates which type is currently scanned for. When the receiver has been detected the menu will skip to point B; when there was some error the Status LED will flash in red color and the menu stays at A. In this case please make sure you’ve connected the receiver correctly and try again!

Single-Line receiver (Status LED off, purple or red at menu point A)
When at menu point B press and hold the button for 2 seconds to load the default function assignment that has been preset for the detected radio system. Alternatively you may program a different function assignment manually in case the default assignment does not match to your transmitter’s function layout. How this works in detail you can read from the detailed instruction manual which you can get at wiki.beastx.com.

Preset function assignment for the different single-line receiver protocols (indicated by Status LED color at A):

- **Spektrum® DSM2/DSMX or JR RJ-01 DMSS remote satellite**

<table>
<thead>
<tr>
<th>THR</th>
<th>AIL</th>
<th>ELE</th>
<th>RUD</th>
<th>GER</th>
<th>PIT</th>
<th>AX2</th>
<th>AX3</th>
</tr>
</thead>
</table>

- **PPM serial signal (SPPM)**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
</table>
Governor channel is used to set headspeed for governor function with nitro or gas driven helicopters.

Receiver with "Standard" 5-wire layout (Status LED blue at menu point A)

Here the function assignment is simply determined by the order of physical connection of the wires to the receiver outputs. Assignment by software is not provided and will not appear when choosing this type of receiver. When a "Standard" receiver (Status LED blue at menu point A) was detected the receiver setup is finished and the system will reboot immediately. Menu point B will not appear!

**WARNING:** At menu point N the throttle output CH5 is active, when using a electric helicopter the motor may start to run! Move the throttle to the desired failsafe position which will be set in case the receiver connection is interrupted or gets disconnected.

When pushing the button after setting throttle failsafe position all the receiver settings will be stored. Then all menu LEDs will flash repeatedly and the system will reboot after 3 seconds.

Receiver with "Standard" 5-wire layout (Status LED blue at menu point A)
5. BASIC HELI SETUP (SETUP MENU)

After power up or finishing RECEIVER MENU adjustment wait until the system has initialized.

Firmware version: 5.0.x

Calibration of radio channels

Do not move sticks on the radio!

Calibration of sensor rest positions

Do not move the helicopter!

Operation mode

Status LED lights up blue or purple

Then enter SETUP MENU for making the basic adjustments.

Press and hold (!) button

Keep button pressed for 2 seconds

Release button when LED A stops flashing

Operation mode (Status LED blue or purple)

Menu LED A flashes (= PARAMETER MENU A)

Menu LED A lights solid (= SETUP MENU A)

Setup menu point A - Device orientation (Menu LED A solid lit up)

Check the selected device orientation and change it if necessary by (repeatedly) moving the rudder stick into one direction until the Status LED color corresponds to the real device orientation. Then briefly push the button to save the setting and to proceed to the next menu point.
Large socket points to **nose of the heli**

- Status LED **off**
- Status LED **flashing purple**
- Status LED **purple**
- Status LED **flashing red**

Large socket points to **tail of the heli**

- Status LED **red**
- Status LED **flashing blue**
- Status LED **blue**
- Status LED **flashing red/blue**

**Flight direction**

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**Setup menu points B, C and D**

Adjust swashplate update rate (B), rudder servo pulse width (C) and rudder update rate (D) again by moving the rudder stick to one or another direction until the Status LED lights in the correct color necessary for the servos used in your helicopter. Briefly pressing the button will store the selected option and skip to the next menu point.

<table>
<thead>
<tr>
<th>Status LED</th>
<th>purple</th>
<th>flashing red</th>
<th>red</th>
<th>flashing blue</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>B Swashplate update rate</td>
<td>50 Hz*</td>
<td>65 Hz</td>
<td>120 Hz</td>
<td>120 Hz</td>
<td>200 Hz</td>
</tr>
<tr>
<td>C Rudder servo pulse width</td>
<td>760 μs</td>
<td>-</td>
<td>960 μs</td>
<td>-</td>
<td>1520 μs*</td>
</tr>
<tr>
<td>D Rudder update rate</td>
<td>50 Hz*</td>
<td>120 Hz</td>
<td>270 Hz</td>
<td>333 Hz</td>
<td>(560 Hz)</td>
</tr>
</tbody>
</table>

⚠️ **If you don’t know the which update rate is best for your servos never use more than 50Hz.**

The higher the update rate the better it is for the flight performance of MICROBEAST PLUS but you must check the servo specifications before increasing the update rate. Otherwise the servos may get damaged! For a list with parameter examples for most common servo types see **WIKI.BEASTX.COM**.

Always use 1520 μs rudder servo pulse width except you’re using a very special type of rudder servo with reduced pulse width (only these servo can be used with an increased update rate of 560 Hz!). Check the servo data sheet!
Setup menu point ❾ - Rudder servo limit
Plug the rudder servo connector into [CH4] output of MICROBEAST PLUS. Put the servo arm on the servo so that it forms roughly an angle of 90 degrees with the rudder linkage rod and adjust the length of the linkage rod as described in the helicopter manual.

Push and hold the rudder stick into one direction to move the rudder servo and release the stick when the servo reaches the maximum or minimum allowed servo throw. Using the rudder stick you can reposition the servo at any time to adjust the exact servo limit. If you do not touch the rudder stick for several seconds the current servo position will be saved as maximum or minimum (the Status LED will flash and then light up solid in blue or red color). Then move the servo to the opposite direction, adjust as described above and wait until also this position gets stored (now Status LED becomes purple).
Setup menu point  Φ - Rudder direction

1. Move the rudder stick and check the rudder direction on the helicopter

![Correct Rudder Direction](image)

Rudder stick to the right

Tail rotor pushes tail left, so heli turns to right.

![Wrong Rudder Direction](image)

Tail rotor pushes tail right, so heli turns to left.

If the stick is moving the servo into the wrong direction use the servo reverse function of your transmitter and reverse the rudder channel to change stick control direction.

2. Now set the rudder direction of the MICROBEAST PLUS gyro

When you move the rudder stick to the **right**, the Status LED must light up or flash in **blue** color. When you move the rudder stick to the **left**, the Status LED must light up or flash in **red** color. When the display is inverted (red = right and blue = left) reverse the display (internal control direction) by tapping the aileron(!) stick once.

![Correct Status LED](image)

Rudder stick to the right

Status LED **blue**

Tap aileron stick to swap colors

![Wrong Status LED](image)

Status LED **red**

3. Optional: When you move the rudder stick to full deflection, the Status LED should light solid, not just flash. If this is not the case, increase the servo throw/endpoint of the rudder channel in the transmitter just as far so that the Status LED changes from flashing to solid when the rudder stick reaches the end position. Note: Do not increase the endpoint too much in the transmitter. We need an exact match of full stick position and stick end position, the Status LED should just change from flashing to solid when reaching the end position.

Always set servo direction in the transmitter first, then check the display on the MICROBEAST PLUS or in the software and change the internal control direction if it does not match the real direction. Do not change the internal direction in order to change the servo direction! This is only used for telling the gyro in which direction it must move the servo. Be very conscientious when doing this setup step, as wrong gyro direction will cause loss of control during takeoff and you probably crash the helicopter!
Setup menu point 6 - Swashplate mixing type

Status LED shows currently selected mixing type

Move rudder stick left or right

Status LED shows currently selected mixing type

<table>
<thead>
<tr>
<th>Status LED</th>
<th>purple</th>
<th>flashing red</th>
<th>red</th>
<th>flashing blue</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Swashplate mixing type</td>
<td>mechanical</td>
<td>90°</td>
<td>120°</td>
<td>140°</td>
<td>135°/140° (1:1)</td>
</tr>
</tbody>
</table>

For ALIGN® T-Rex helicopters you can keep the default setting of 120 degrees electronic swash mixing (Status LED solid red).

Never use any swashplate mixing in your transmitter even when electronic mixing is required!
Deactivate the swashplate mixing in your transmitter or set it to mechanical mixing (which is often called “normal”, “H1” or “1 servo” mixing), so that each stick function only moves one receiver output channel. The swashplate mixing is all done by MICROBEAST PLUS!

In the following connect the servos to the outputs marked with CH1 to CH3 (CH7) as shown below. With electronic swashplate mixing the two aileron servos have to be connected to CH2 (=left) and CH3 (=right). With a mechanical mixed head (H1) the aileron servo connects to CH2 and collective pitch servo to CH3. Plug the the elevator servo into CH1 port. When using a scale helicopter with 90 degrees eCCPM you can connect a second elevator servo to CH7 output on the MICROBEAST PLUS. Note that CH7 only is a signal output, so you must power the servo from elsewhere, i.e. by getting power from the SYS-port or CH5 using a Y-adapter (for + and - only!).

When you route the wire leads in your model make sure that there is no tension passed to the MICROBEAST PLUS. Make sure that MICROBEAST PLUS is able to move freely, so no vibrations get passed onto the unit by the wire leads. Do not use any shrink tubing or fabric hose to bundle or encase the wiring in close proximity to the point at which the cables are plugged into the MICROBEAST PLUS. This makes the cables stiff and inflexible and can cause vibrations being transmitted to MICROBEAST PLUS.
Setup menu point H - Swashplate servo trim

At SETUP MENU point H we trim the servo center positions so that each servo horn forms an exact 90 degrees angle with the adjustment linkage. This is necessary as usually you will not be able to attach the servo horns in exact center position to the servo. After all servos have been trimmed do not proceed to the next menu point yet. With active trimming adjust the linkage rods according to your helicopter’s manual.

Initially when the trimming is 0 on all servos the Status LED will be off. Attach the servo horns in center position as good as possible. By tapping the aileron stick you can select one servo after another. Every color of the Status-LED is corresponding to a specific servo channel that is indicating its selection by a short up and down move. Use the rudder stick to change the servo trimming/adjust the center position. You can switch back and forth between the servos as often as you need.

Choose one of the servos connected at CH1 - CH3 (CH7)

Status LED off (= no servo active)

Tap aileron stick left or right to choose servo

Move rudder stick to adjust servo center position

When you’ve perfectly adjusted the servos now adjust the linkage rods going from servos to the swashplate and from the swashplate to the blade grips. The swashplate must be leveled and centered on the main shaft and the bladegrips should be set to 0° of pitch.

If necessary adjust the swashplate anti-rotation guide so that the swashplate phasing is not shifted (only applies to 2-blade rotorheads).

Hint: To reset the servo trims push and hold the button for at least 10 seconds.
Setup menu point 1 - Swashplate servo directions
Move the thrust stick and check whether all servos push the swashplate up and down simultaneously. If this is not the case by tapping the aileron stick you can select one servo after another. Every color of the Status-LED is corresponding to a specific servo channel that is indicating its selection by a short up and down move. Tap the rudder stick once to change the servo direction. You can switch back and forth between the servos as often as you need.

Please note: It’s not possible to reverse the servos with the servo reverse function of your transmitter! The transmitter only controls the functions of MICROBEAST PLUS, not the servos! Reversing a channel in the transmitter will reverse the control function in total, not the direction of a single servo (except when using mCCPM swashplate mixing).

Setup menu point 4 - Swashplate servo throw
At SETUP MENU point J we adjust the internal servo throw so that MICROBEAST PLUS has a reference on how far it must move the servos when controlling the helicopter. To set the throw you have to align one rotorblade on the longitudinal axis (in parallel to the tail boom) and measure the cyclic pitch with a digital pitch gauge on this rotorblade.
Setup menu point K - Collective pitch

1. Set internal control direction

Move thrust stick to maximum positive pitch and let it stay there

Correct

Status LED blue

Wrong

Status LED red

2. The Status LED must light solid, not just flash. If this is not the case, increase the servo throw/endpoint of the pitch channel in the transmitter just as far so that the Status LED changes from flashing to solid when the rudder stick reaches the end position. But do not increase the endpoint too much in the transmitter! We need an exact match of full stick position and stick end position, the Status LED should just change from flashing to solid when reaching the end position.

3. Now use rudder stick to adjust maximum positive collective pitch (i.e. +12°)

4. Finally move thrust stick to full negative position and repeat steps 2. and 3. for the negative pitch.

Do not change control direction anymore!
Setup menu point 🔄 - Swashplate control directions

1. If not already done, move the stick(s) for aileron and elevator on the radio and check whether the swashplate is moved in the correct directions on the helicopter. The swashplate must follow the stick movement: pushing elevator forward will tilt the swashplate forwards, adding aileron to the right will move the swash to the right and so on. **If the stick is moving the swashplate into the wrong direction use the reverse function of your transmitter** and reverse the aileron and/or elevator channel to set stick control direction correctly.

2. Now set the internal control direction of the MICROBEAST PLUS gyro

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There are four possible options, only one is correct!
Setup menu point \( \text{N} \) - Internal Headspeed Governor

This menu point is only accessible if you’re **not using a Standard type receiver**! Otherwise pressing the button at menu point \( \text{M} \) will exit the menu and lead back to operation mode.

Enable the Headspeed Governor function by choosing the type of drive system of your helicopter. If you’re using the governor function of the ESC or an external governor or if you want to fly without headspeed governing at all, choose „Governor off“.

<table>
<thead>
<tr>
<th>Status LED</th>
<th>off</th>
<th>red</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{N} ) Internal Governor</td>
<td>Governor off*</td>
<td>electric heli</td>
<td>nitro/gas heli</td>
</tr>
</tbody>
</table>

When you’re using the Headspeed Governor of MICROBEAST PLUS now connect the RPM sensor (i.e. magnetical, optical or brushless phase sensor) or the wire for RPM signal of your ESC to the white sensorport on the long side. For this you may need the optional available BXA76401 adapter.
6. GOVERNOR SETUP MENU

Governor menu point **A** - Test mode (Menu LED **A** flashing slowly)

If the Governor was activated at SETUP MENU point **N** (set to „electric“ or „nitro/gas heli“) you will access the Governor menu immediately afterwards. At point **A** we check if the speed sensor is functioning properly and if the sensor wire is connected correctly.

When using a helicopter with combustion engine adjust the throttle servo positions in the transmitter (servo throw and servo center) and setup the throttle on the heli (throttle linkage rod length and servo arm position), if necessary. Attach the servo horn at thrust mid stick position. The throttle linkage must form a right angle with the servo horn. Adjust the length of the linkage according to the instructions of the helicopter, so that it also is positioned perpendicular to the linkage lever at the carburetor. The carburetor must be opened halfways (note the markings on the carburetor!). Then adjust the servo throw so the carburetor can be fully opened and fully closed without jamming the throttle servo.

Governor menu point **B** - Motor off/Idle position

Using an electric heli move the throttle to the position at which the motor is just before to start running, i.e. by adding throttle until the motor starts to turn and then reducing the throttle a little. With a nitro/gas heli move the throttle to a stable idle position.
Governor menu point 🔐 - Full throttle position

Move throttle to maximum position. **Note:** In electric governor mode the throttle input will not be passed to CH5 output to prevent from motor damage by running the motor without load! Thus, you have to check before that the full throttle position runs the motor at maximum speed in reality, i.e. by correctly programming your throttle end points in the transmitter or ESC.

Governor menu point 📦 - Transmitter setup

Here we can set the desired rotor headspeed and throttle curves. The Status LED can be used to verify the transmitter setup. Governor off = off, Autorotation = purple, Gov active = red or blue (at max. RPM).

When using an **electric heli** the throttle is completely independent from the thrust stick. The throttle curves are set to horizontal lines which stand for a certain headspeed and governor operation mode. Using the flight mode switch you can switch between the different curves/rpm presets in the transmitter.

Motor off
- Throttle 0% over the entire range

Idle up
- Throttle set between 15% and 100% equals headspeed of 800 - 5000rpm
- +5% = +247rpm

Autorotation
- Throttle greater 0% and smaller 15%
- Motor off
- When switching back to idle up motor will restart quickly

The Governor for **nitro/gas models** can be operated in two different ways: One possibility is to operate the governor using the **throttle channel similar to the electric mode**. Only difference here is that the range below 50% throttle is used to manually control the throttle servo, i.e. for starting the motor. The range above 50% activates the governor and presets a specific rotor headspeed just like in electric mode.

Manual control
- Range between 0% und 50% directly controls the throttle servo from idle to fully opened position

Idle up
- Throttle set between 50% and 100% equals headspeed of 500 - 3000rpm
- +5% = +250rpm

Autorotation
- Throttle in idle position
- When switching back to idle up (>50%) motor will restart quickly
- Switching back to manual control (<40%) will disable governor
The second option to control the Governor for **nitro/gas helicopters** is to use a **separate switch channel**. Here the throttle curves/throttle channel is used for manual throttle servo control only. The Governor is activated and the headspeed is set by using the additional channel. When the throttle channel is above 25% and a headspeed is set, the Governor will activate and control the headspeed. Moving the throttle channel below 25% will switch to Autorotation mode.

### Manual control
- Throttle curve controls servo
- Governor off
- Governor channel below 5% (-90)

![Throttle curve](image)

**Idle up**
- Governor channel set between 5% and 100% (or -90 and +100 on some transmitters) equals headspeed of 500 - 3000rpm
- +5% (or 10 clicks) = +131rpm
- throttle channel must stay above 25%

![Governor control channel](image)

---

Which nitro governor mode you’re using depends on whether you’ve assigned a switch channel to control the governor at the **RECEIVER MENU** function assignment or not. You can find out which mode you’re using by watching the Status LED display here while moving the throttle!

---

For proper governing the headspeed should not be set higher than 80% of the maximum possible headspeed of the helicopter. When using the nitro governor, make sure that slow rampup speed and fast rampup speed are not set too high in **PARAMETER MENU**. Otherwise the throttle may be opened too quick and may lock in at full throttle position.

### Governor menu point Ɛ - Signal divider
Electric helicopter with brushless phase sensor or phase signal from ESC: **signal divider = motor pole count : 2**
Nitro/Gas helicopter with magnetical or optical sensor: **signal divider = number of triggers (i.e. magnets or optical markers)**

<table>
<thead>
<tr>
<th>Status LED</th>
<th>off</th>
<th>flashing purple</th>
<th>purple</th>
<th>flashing red</th>
<th>red</th>
<th>flashing blue</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ɛ Signal divider</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4*</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

---

### Governor menu points Ƒ Ğ Ɵ - Main gear ratio
When the helicopter has a single stage main gear: **Main gear ratio = Main gear tooth count : Motor pinion tooth count**
Set the Status LED color/state at each of the menu points Ƒ, Ğ and Ɵ so that the main gear ratio can be calculated as sum of the three menu points, i.e. **8.55:1 = Ƒ flashing purple + Ğ flashing red + Ɵ red**

<table>
<thead>
<tr>
<th>Status LED</th>
<th>off</th>
<th>flashing purple</th>
<th>purple</th>
<th>flashing red</th>
<th>red</th>
<th>flashing blue</th>
<th>blue</th>
<th>red/blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ƒ</td>
<td>custom</td>
<td>8.00</td>
<td>9.00*</td>
<td>10.00</td>
<td>11.00</td>
<td>12.00</td>
<td>13.00</td>
<td>14.00</td>
</tr>
<tr>
<td>Ğ</td>
<td>+0.00</td>
<td>+0.20</td>
<td>+0.40*</td>
<td>+0.60</td>
<td>+0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ɵ</td>
<td>+0.00</td>
<td>+0.05</td>
<td>+0.10*</td>
<td>+0.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. FLYING AND OPTIMIZATION

The tail gyro gain is adjusted by one of the transmitter’s auxiliary channels. The more servo throw this channel produces, the higher the tail gyro gain will be. The direction of servo throw determines whether the gyro works in Normal-Rate mode or in HeadingLock mode. The color of the Status-LED indicates the selected mode when MICROBEAST PLUS is operational. Purple means Normal-Rate and blue indicates HeadingLock mode. When changing the gain and after initialization sequence the amount of gain is displayed by one of the Menu LEDs for 4 seconds.

For the first flight we suggest to use HeadingLock mode (Status LED blue) and start with medium gain (not higher than LED 3). In case the tail of the helicopter starts to oscillate with high frequency in flight, immediately reduce the gain! If on the other hand the rudder control feels imprecise and the gyro doesn’t hold position very well, increase the gain. Most radio systems provide an automatic switching for the tail gyro gain depending on flight modes. In the flight mode with the lowest rotor headspeed you can use the most gain. Reduce the gain the higher the headspeed is. Before the first flight make sure the tail gain is set correctly and is also set when switching flight modes. Use the LED display to see how the gyro is setup and do not rely upon the values of your transmitter as signs and percentages may vary depending on radio brand and radio type!

Before the first take off make a stick direction check and check if swash and tail gyro are correcting to the right direction when you tilt, roll or yaw the helicopter by hand. Just before lift-off make sure that the swashplate is horizontal and that the tail pitch slider is close to center position. Avoid excessive steering during lift-off otherwise the helicopter may tip over! The best way is to give a fair and direct collective pitch input to lift the helicopter quickly up into the air.

Adjusting the three dials on top of MICROBEAST PLUS you can optimize the control loop and customize it to your helicopter. For the first flight all three dials should be centered. If necessary only adjust one dial at a time and only in little steps. Turning a dial clockwise will increase the effect, turning it counter-clockwise will decrease the effect of the parameter.

1 - Cyclic gain
The higher the gain the harder the helicopter will stop after cyclic moves and the more stable and precise the helicopter will fly. If the gain is too high the helicopter will tend to shake (especially on the elevator axis) as the system overcompensates. With low gain the helicopter does not stop precisely and overshoots after a cyclic movement. Additionally it is unstable and control feels sluggish. Due to their low mass small helicopters typically do not need as much gain as large helicopters.

2 - Cyclic feed forward
Feed forward connects the servo movements with your stick inputs, bypassing the control loop. This will give a more natural control feel and quicker reactions to stick inputs. But if the cyclic feed forward is too high, stick control will fight against the control loop. The heli will bounce back when stopping from a cyclic movement and it will react over sensitive and pitch up easily in fast forward flight.

3 - Tail gyro response
Increasing the tail gyro response will cause harder stopping and more aggressive response to rudder stick inputs. If response is set too high, the tail will bounce back when doing a hard stop (especially when turning against rotor torque). If the dynamic is set too low, the rudder control feels dull and stopping is very soft. Ideally the tail should stop perfectly to the point without making any flapping noises.
8. PARAMETER MENU

The PARAMETER MENU allows you to further customize the flight characteristics of the helicopter and the reaction of the system to control inputs. You can find a detailed description for each parameter in the MICROBEAST PLUS instruction manual.

**Entering PARAMETER MENU**

Press and hold button

Operation mode (Status LED is blue or purple)

Release button

Menu LED A flashing

Menu LED A flashing (= PARAMETER MENU A)

**Menu point A - Swashplate quick trim (Menu LED A flashing)**
Move the stick(s) for aileron and elevator to trim the swashplate into the desired direction. With rudder you can trim the collective up/down. When using the tail gyro in Normal-Rate mode you can trim the rudder servo with the rudder stick. To delete all trimming push and hold the button for at least 10 seconds.

**Menu points B to K**
Color and state of the Status LED indicate which option is currently selected at each menu point. By pushing the rudder stick repeatedly you can cycle through the available options at each menu point and change the setting if necessary. Briefly pushing the button will skip to the next menu point. After the last menu point the system will exit PARAMETER MENU and change back to operation mode.

<table>
<thead>
<tr>
<th>Status LED</th>
<th>off</th>
<th>purple</th>
<th>flashing red</th>
<th>red</th>
<th>flashing blue</th>
<th>blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>B Control style</td>
<td>custom</td>
<td>normal</td>
<td>sport*</td>
<td>pro</td>
<td>extreme</td>
<td>TX mode</td>
</tr>
<tr>
<td>C Speed flight stability</td>
<td>custom</td>
<td>very low</td>
<td>low</td>
<td>medium*</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>D Rudder rate consistency</td>
<td>custom</td>
<td>very low</td>
<td>low</td>
<td>medium*</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>E Stick deadzone</td>
<td>custom</td>
<td>very small</td>
<td>small*</td>
<td>medium</td>
<td>large</td>
<td>very large</td>
</tr>
<tr>
<td>F Torque precompensation</td>
<td>custom</td>
<td>off</td>
<td>low - nor.</td>
<td>high - nor.</td>
<td>low - inv.</td>
<td>high - inv.</td>
</tr>
<tr>
<td>G Cyclic response</td>
<td>custom</td>
<td>normal</td>
<td>slightly increased</td>
<td>increased</td>
<td>aggressive</td>
<td>very aggressive</td>
</tr>
<tr>
<td>H Pitch boost</td>
<td>custom</td>
<td>off*</td>
<td>low</td>
<td>medium</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>I Throttle response</td>
<td>soft</td>
<td>normal</td>
<td>slightly increased</td>
<td>increased</td>
<td>aggressive</td>
<td>very aggressive</td>
</tr>
<tr>
<td>J Slow rampup speed</td>
<td>custom</td>
<td>50 rps</td>
<td>100 rps</td>
<td>200 rps*</td>
<td>300 rps</td>
<td>400 rps</td>
</tr>
<tr>
<td>K Fast rampup speed</td>
<td>custom</td>
<td>using slow rampup speed</td>
<td>300 rps</td>
<td>500 rps*</td>
<td>700 rps</td>
<td>900 rps</td>
</tr>
</tbody>
</table>
### SETUP MENU

(Menu LED solid)

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Device orientation</td>
<td>R</td>
<td>horizontal pins to front</td>
<td>vertical pins to front</td>
<td>hor. inv. pins to front</td>
<td>vert. inv. pins to front</td>
<td>horizontal pins to back</td>
</tr>
<tr>
<td>B</td>
<td>Swashplate frequency</td>
<td>R</td>
<td>custom</td>
<td>50 Hz*</td>
<td>65 Hz</td>
<td>120 Hz</td>
<td>165 Hz</td>
</tr>
<tr>
<td>C</td>
<td>Rudder pulse width</td>
<td>R</td>
<td>custom</td>
<td>760 μs</td>
<td>960 μs</td>
<td>1520 μs*</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Rudder frequency</td>
<td>R</td>
<td>custom</td>
<td>50 Hz*</td>
<td>165 Hz</td>
<td>270 Hz</td>
<td>333 Hz</td>
</tr>
<tr>
<td>E</td>
<td>Rudder limits</td>
<td>R</td>
<td>Use rudder to move servo to one endpoint and wait until LED flashes, then move to the other endpoint and wait.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Rudder direction</td>
<td>A</td>
<td></td>
<td>left</td>
<td></td>
<td>right</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Swash mixing</td>
<td>R</td>
<td>custom</td>
<td>no mixing</td>
<td>90°(3/4 servos)</td>
<td>120°*</td>
<td>140°</td>
</tr>
<tr>
<td>H</td>
<td>Servo trim</td>
<td>A R</td>
<td>no trim*</td>
<td>Servo CH1</td>
<td>Servo CH2</td>
<td>Servo CH3</td>
<td>Servo CH7</td>
</tr>
<tr>
<td>I</td>
<td>Servo directions</td>
<td>A R</td>
<td>Servo CH1</td>
<td>Servo CH2</td>
<td>Servo CH3</td>
<td>Servo CH7</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Cyclic throw (set to 6 degrees)</td>
<td>A R</td>
<td>neutral</td>
<td>not good</td>
<td>OK</td>
<td>perfect</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Collective pitch</td>
<td>A R</td>
<td>check throw!</td>
<td>negative</td>
<td>check throw!</td>
<td>positive</td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Servo limit</td>
<td>R</td>
<td></td>
<td>not good</td>
<td>left/back</td>
<td>right/forward</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Cyclic directions</td>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Headspeed Governor</td>
<td>R</td>
<td>Governor off*</td>
<td>electric heli</td>
<td>nitro/gas heli</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### GOVERNOR SETUP MENU

(Menu LED flashing slowly)

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Test mode</td>
<td>nitro/gas heli: Status-LED blue when magnet passes sensor</td>
<td>electric heli: Status-LED red when motor is running</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Motor off/idle position</td>
<td>T</td>
<td>nitro/gas heli: throttle servo to (increased) idle position</td>
<td>electric heli: throttle in „motor off“ position, just before motor starts (⚠ throttle unlocked!)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Full throttle position</td>
<td>T</td>
<td>Set full throttle position (electric heli: motor speed does not change anymore - nitro/gas heli: servo at maximum)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Transmitter setup</td>
<td>Governor off</td>
<td>Autorotation</td>
<td>Governor on</td>
<td>Governor on max. RPM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Signal divider</td>
<td>R</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4*</td>
<td>5</td>
</tr>
<tr>
<td>F</td>
<td>Main gear ratio (Sum of [ F + G + H ] if not „custom“)</td>
<td>R</td>
<td>custom</td>
<td>8</td>
<td>9*</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td>+0.00</td>
<td>+0.20</td>
<td>+0.40*</td>
<td>+0.60</td>
<td>+0.80</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td></td>
<td>+0.00</td>
<td>+0.05</td>
<td>+0.10*</td>
<td>+0.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enter SETUP MENU by pressing button for at least 2 seconds in operation mode. Skip to next Menu Point by pressing button briefly, after last point menu will exit.

R Use rudder to adjust value/choose setting
A Use aileron to switch menu option
T Set throttle to desired position if you like to change the setting

* Default setting: hold button for 10 seconds at any Menu Point (except H) to reset setup and parameter data. Holding button at H only the trims will be reset!
### PARAMETER MENU

(Menu LED flashing quickly)

<table>
<thead>
<tr>
<th>A</th>
<th>Quick trim</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gyro in HL Mode: Trim aileron and elevator with stick, use rudder to trim collective.</td>
</tr>
<tr>
<td></td>
<td>Gyro in Rate Mode: Rudder stick trims rudder.</td>
</tr>
<tr>
<td></td>
<td>AttitudeControl active: Adjust roll and pitch angle of horizon with aileron and elevator stick.</td>
</tr>
<tr>
<td></td>
<td>Any mode: Reset all servo trims by holding button for 10 seconds.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Control style</th>
<th>custom</th>
<th>normal</th>
<th>sport*</th>
<th>pro</th>
<th>extreme</th>
<th>TX mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Speed flight stability</td>
<td>custom</td>
<td>very low</td>
<td>low</td>
<td>medium*</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>D</td>
<td>Rudder rate consistency</td>
<td>custom</td>
<td>very low</td>
<td>low</td>
<td>medium*</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>E</td>
<td>Stick deadzone</td>
<td>custom</td>
<td>very small</td>
<td>small*</td>
<td>medium</td>
<td>large</td>
<td>very large</td>
</tr>
<tr>
<td>F</td>
<td>Torque precompensation</td>
<td>custom</td>
<td>off*</td>
<td>low - inv.</td>
<td>high - inv.</td>
<td>low - nor.</td>
<td>high - nor.</td>
</tr>
<tr>
<td>G</td>
<td>Cyclic response</td>
<td>custom</td>
<td>normal*</td>
<td>slightly increased</td>
<td>increased</td>
<td>aggressive</td>
<td>very aggressive</td>
</tr>
<tr>
<td>H</td>
<td>Pitch boost</td>
<td>custom</td>
<td>off*</td>
<td>low</td>
<td>medium</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>I</td>
<td>Throttle response</td>
<td>soft</td>
<td>normal*</td>
<td>slightly increased</td>
<td>increased</td>
<td>aggressive</td>
<td>very aggressive</td>
</tr>
<tr>
<td>J</td>
<td>Slow spool up rate</td>
<td>custom</td>
<td>50 rps</td>
<td>100 rps</td>
<td>200 rps*</td>
<td>300 rps</td>
<td>400 rps</td>
</tr>
<tr>
<td>K</td>
<td>Quick change rate</td>
<td>custom</td>
<td>= slow spool up</td>
<td>300 rps</td>
<td>500 rps*</td>
<td>700 rps</td>
<td>900 rps</td>
</tr>
<tr>
<td>L</td>
<td>AttitudeControl mode</td>
<td>disabled*</td>
<td>Angular mode</td>
<td>Bail out rescue</td>
<td>Bail out w. pitch</td>
<td>3D Mode</td>
<td>3D Mode w. pitch</td>
</tr>
<tr>
<td>M</td>
<td>AttitudeControl pitch</td>
<td>&gt; 0%</td>
<td>&gt; 30%</td>
<td>&gt; 50%</td>
<td>&gt; 70%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enter PARAMETER MENU by pressing button briefly in operation mode. Use rudder to adjust value/choose setting (except at A).
Skip to next Menu Point by pressing button briefly, after last point menu will exit.

* Default setting - hold button for 10 seconds when in SETUP MENU (!) to to reset everything to default (except receiver settings)

### RECEIVER MENU

(Menu LED flashing)

<table>
<thead>
<tr>
<th>A</th>
<th>Receiver type</th>
<th>Spektrum/JR Sat</th>
<th>Analog serial input</th>
<th>Digital serial input</th>
<th>Standard RX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pitch channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Aileron channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Elevator channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Rudder channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Gyro channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Throttle channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Aux channel (CH6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Governor channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>AttitudeControl channel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>Throttle failsafe</td>
<td>Move throttle to failsafe position (⚠️ throttle unlocked!) and push button to save and exit.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enter RECEIVER MENU by pressing and holding button before (!) and while power up. Skip to next Menu Point by pressing button briefly (at Menu Point A short button press will initiate automatic receiver detection). When Standard RX is used menu will exit after detection!

Please note: AttitudeControl options are only accessible when PROEDITION firmware upgrade is installed.
DECLARATION OF CONFORMITY

We

BEASTX GmbH
Karl-Ferdinand-Braun-Str. 33
50170 Kerpen
Germany

herewith declare that MICROBEAST PLUS / MICROBEAST PLUS HD meet all the essential requirements of the Directives 2004/108/EC und 2011/65/EU. For the evaluation of compliance with these Directives the following standards where applied:

EN 61000-6-1:2007

The products carry the CE mark:

CE

The products mentioned above are fully compliant with requirements stipulated by REACH (1907/2006/EC) and RoHS (2011/65/EC), where applicable. Furthermore, the articles and their packaging materials do not contain substances included on the current candidate list for authorization (SVHC list) according to Art. 33 and 59(1, 10) REACH in a concentration above 0.1 % weight by weight. The candidate list and its updates are closely monitored on a regular basis. In addition, our products do not contain any substances subject to authorization or restriction (REACH Annexes XIV and XVII).

Kerpen, 01.08.2014
place and date of issue

Markus Schaack, CEO
name and signature

LEGAL TERMS

All statements in this document have been checked for accuracy, integrity and actuality. However, potential mistakes cannot be excluded. We are not responsible for any damage which occurs as a result of these contents. Do not hesitate to send us any suggestions for improvement by e-mail to info@beastx.com.

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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