

Instruction for steering-lifting axle module

2017-1101-22
for an additional steering axle



Function:

The module controls a second steering servo (slave, LS2) in such a way that the basic steering control is taken over by the main servo (master, LS1) and, in a corresponding ratio, the steering deflection is transferred to this second servo.

This ratio can be adjusted from 0- to 2-times both in the same direction and in opposite directions and the common servo center of the servo deflections can be corrected. This is done via two pots.

Similarly, a lifting axes detection is integrated (Hub), this function is automatically activated, as well as the module is the lift axle servo signal looped through.

When raising the lifting axle the module prevents the steering movement on the second axis, the steering rash then remains at the last value set until the lift function, the steering axle lowers again.

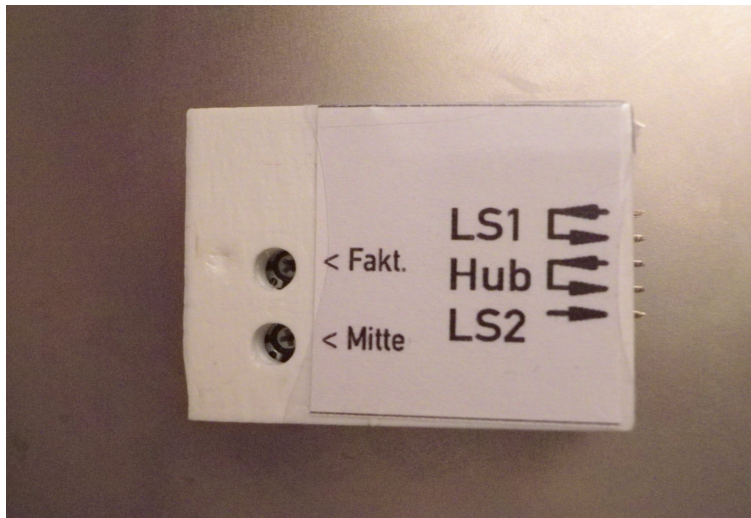


Views and terms:

At the top, there are five three-pin slots for connections to the servo and receiver channels.

They are arranged in pairs and each have an input and an output (plug-in direction: bottom minus / center plus / top pulse) or only one output for the second steering servo (LS2).

Following the sweep, the corresponding receiver output is initially plugged in via a patch cable and the actual steering or lifting axle servo directly next to it. Outside, the second steering servo is infected.

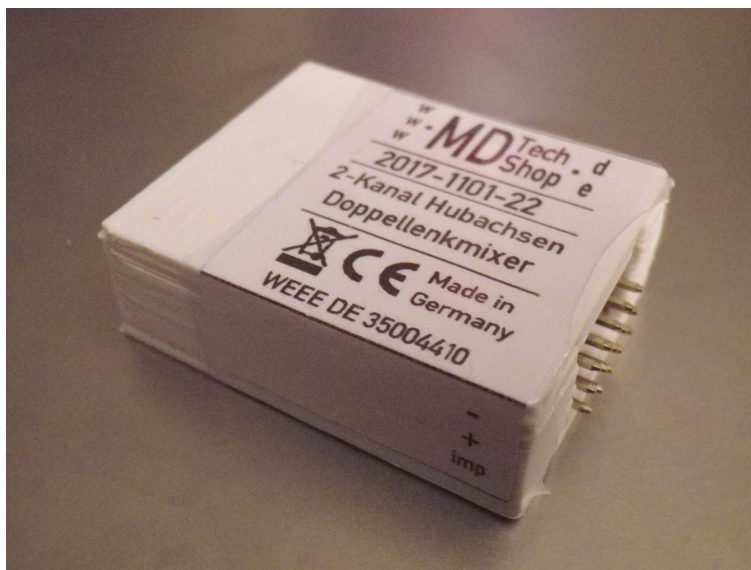


Top view

Connections from top to bottom:

- Connection cable from receiver via a patch cable (at both ends 3-pin connector), steering servo output
- Steering servo 1
- Connecting cable from receiver via a patch cable, lift servo output
- Lift servo
- Steering servo 2

On the left you can find the potentiometers for setting the gain (Fakt) and the center (Mitte) of the second steering servo.



Bottom

Here is only our label to find.

On the side you can see the pole assignment of the connector (bottom minus / center plus / top pulse)



Preparations and operation:

First of all, the connections of the used receiver outputs (steering servo and lifting axle servo signal) are made via correspondingly long patch cables (servo cables with double-sided servo connectors) with the pin headers located on the module front side.

In addition to the respective patch cords, the associated servo plugs of the primary steering servo (master) and the lift servo are plugged in. Next to it, the second steering servo (slave).

Now you connect the receiving system to the voltage source (transmitter is also turned on) and adjusted via the transmitter, the trim position of the steering servo (master) (trim or path settings at computer transmitter). If available, control the lift axle on ground contact and leave it there. Then we briefly interrupt the receiver power supply again.

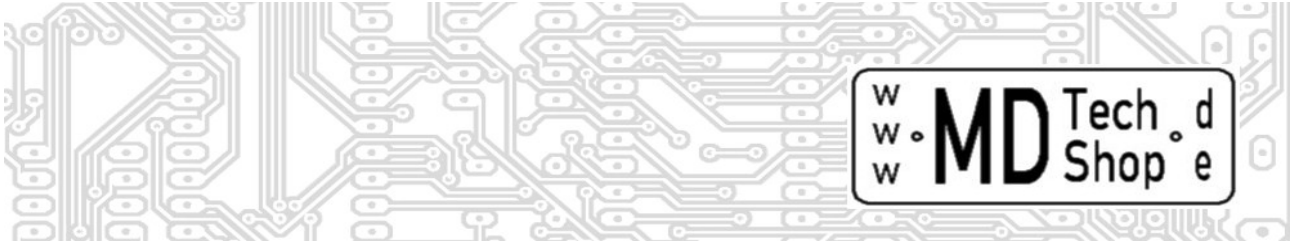
After switching on again, the module learns the steering servo center and the lift axle position, and does so later each time it is switched on.

Now set the second steering servo to neutral at the "middle" potentiometer.

To adjust the steering ratio, the steering deflection on one side should be maximized at the transmitter. Here you observe the reaction of the second steering axle.

The poti "Fakt." is now rotated from the 12 o'clock position to the left or to the right until the deflection on the second axis is set in the same direction and in the correct ratio to the main steering axis. This can also be readjusted at any time during operation.

The logic on the potentiometer rash is that at 12 o'clock position the steering swing is "zero" and increases when turning left or right. Turning to the left or right reverses the direction of rotation of the second servo so that the mounting position and basic direction of rotation of the connected servo do not matter.



Remarks:

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Warning:

This is not a toy! It contains small parts! Keep it away from young children!

Use only for functional model construction !

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