

SETUP MD-01 / MD-02 Controller and Rotor

COMMUNICATION between MD-01 / MD-02 and PC

(Note: when you read MD-0x we are talking about MD-01 and MD-02)

Communication between Controller and PC is done by File **SPIDMD-01dde.exe** .

This file is used to communicate between driver MD-0x and PC. You can configure this driver and it is also used as program participating in communication between ORBITRON and MD-01. In the future there will be more programs supported. Please visit <u>www.rfhamdesign.com</u> and click at the update tab in BIGRAS/HR AZ&EL rotor.

How to start communication from MD-01 / MD-02 to PC

First step: MD-0x controller:

- Important is USB Communications is used. (connect USB cable at port: USB D)
- When power on MD-0x, display shows: Mode: Normal
- Pres button: S twice
- You will now enter Motor configuration
- Press button: ">" 3* and select with up or down button USB



 Press button: ">" 1* again and select with up or down button SPID ROT2 (protocol SPID ROT2) (This SPID ROT2 protocol is standard installed in the MD-01 rotor controller)



- To complete and to close this setup, press "F" button and choose YES
- You are now back in the running mode and ready to use the MD-01 controller

Alle leveringen dienen te worden betaald binnen 30 dagen na factuurdatum. Voor alle door ons gesloten overeenkomsten, leveringen en diensten gelden onze algemene verkoop en leveringsvoorwaarden welke op www.rfhamdesign.com zijn vermeld. All transactions, deliveries and services are subject to the terms and conditions of delivery which can be found at www.rfhamdesign.com

All configurations are done now to start to communicate, now start with next pages.

SETUP MD-01dde software

- #1 Start program spidMD01dde.exe
- #2 Connect MD-0x throughout USB D port to PC by a USB Cable (Port: USB D)
- #3 Install USB drivers for PC (USB Driver)
 This USB driver will install a USB Serial Port (COM x)
 You can check this in Windows/configuration/device management and search for COM ports

 When the USB driver is installed, select in MD01dde in OPTIONS the port that is set through the PC
- after USB activation (for example COM 7) Don't change baud rate and pooling time !! Double click at "port not selected" to choose the USB Serial port which must be used, after this click "Open"

SPID MD-01				X
(MODE: A1:	NORI 0.0	1AL A2:	8.0
	OUTS STATE	12	345	8
Port: COM6 Deutote: 460 800				
Pooling time (ms): 250				

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COMPLETING the Configuration

Now click at MD-0x parameters / Ports and check if the screen as below, State USB COM must be ON



should move now and Azimuth and Elevation should be displayed correct at PC and MD-01 controller.



Note: Arrows on keypad are only available when you did select the screen as on the right.

Click center button to swap screen.



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More functions available in MD-0x software:

In MD-01 software you are be able to configured the MD-0x controller, when done press Upload in the MD01 Parameters screen, changes are now be transported to the MD-0x controller.

How does is work ?

Click at a item you want to change in the MD-0x parameters screen, for example:

"Start Power 30%" (picture right) It lichts green now.

You can now change this value using the arrow keys up and down

When you changed some settings you can now upload it to the MD-0x controller by pressing Upload button. Click Yes at the question...... Wait for a second and if needed switch of controller, switch is on, and new data is active.

SPID MD-01			
		MODE: A1:	NORMAL 0.0 A2: 0.0
	•		123456
/MD-01 parameters (
() Motors	Motors		
sinti Ports Image: Sintist Sintis Sintist Sintist Sintit Sintist Sintist Sintist Sintist Sin	Motor configuration Template: 1:AZ, 2:EL Start: IMMEDIATELY Stop: IMMEDIATELY Control AE: USB Protocol AE: SPID ROT2	Motor 1 State: ON Type: DIGITAL Kind: AZIMUTH Input: ELECTRONIC Min angle: -180 Max angle: +180 Gear: 0.093750 Puls insues:	Motor 2 State: 0N Type: DIGITAL Kind: ELEVATION Input: ELECTRONIC Min angle: -15 Max angle: 195 Gear: 0.093750 Puls timeout: 4 s Max power: 100% 60% Start powers: 30% 40% 60% 0 s Start times: 5 s 0 s Stop speeds: 50% 40% - 30%
	Restore defaults	Stop times: 2 s 0 s	0 s Stop times: 2 s 0 s 0 s

Note: Most values can be changed, but changing motor configuration can be result in a not working rotor, also Gear is factory set and should not be changed !

Possible changes which can be done by the user:

- ✓ Soft Start and Stop (3 step)
- ✓ Minimal and Maximal turning angle (AZ & EL)
- ✓ Protocol change (advance setting / experience)

New Mouse option:

Connect mouse at OUT 3 port back site MD-0x

Available is controlling by mouse, this option can be enabled / disabled in the Motor Config Menu [press S 2* - press ">" until "Mouse Control" - switch on/off by pressing up/down button]

A special mouse is available for sale.

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ORBITRON Track Program

Co-operation MD-01 and track program ORBITRON

The MD-0x rotator controller has build a driver to cooperate with Orbitron track software. Lots of satellites are available to track, as well moon and sun, etc, etc

First download the program and MyDDE driver from http://www.stoff.pl/

To start track you have to install the program and place the driver in the same directory where the program is installed.

#1 Now open program MD-01 and start program ORBITRON.

#2 Select In Orbitron: Rotor/Radio option DRIVER and select MYDDE,

#3 Click at the refresh button right of the text

#4 New pop-up screen will appear and select Yes

#5 Search for MyDDE.exe and click at the exe program to select

#6 Select Open and a new screen (client dde) will appear with the selected Satellite in Orbitron which displays track data

Both screens, MyDDE client and Orbitron must be running during track Now go back to the MD-0x program and.....



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Select in MD-0x program the ORBITRON tab.



Double click DDE conv. status from closed to open.

SPID MD-01	X
 + + 	MODE: NORMAL A1: 227.2 E2: 14.9
\bullet	OUTS 123456 STATE
Sat name: ZDN Azimuth: 227.2 Elevation: 14 Uplink: 145000000 Hz Downlink: 14 Uplink mode: Downlink mode: Notification: None	4.9 45000000 Hz
DDE conv. status: Opened	

The parameters from Orbitron should now appear in MD-0x screen. (AZ & EL) (Parameter AZ & EL must be a positive number)

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