


Installation Guidelines and Operating Instructions

Integrated Web-Server for the support of the
EGIS-Bi-Axial-Antenna-Positioners
via Web-Browser and Inter- & Intra-Net

WebServer S III

Bi-Axial-AZ/EL-Rotor Web-Remote Control 

powered by EGPOSER V5

Current selected satellite: **055,00 E Insat 3E**

126.30 °AZ 021.16 °EL

Password:

Favorite Sat-List: _____ (to show the complete satellite list, push button 'Entire Sat-List')

084,50 E TDRS 7 (incl. 127ß)
055,00 E Insat 3E
023,50 E Thor 2 (incl. 30ß)
019,20 E Astra 1L
013,00 E Hot Bird 8

↑
← GO →
↓

Fine Tuning Step Size: 0.2°

Retrieve Position

time:
01.12. 08:35
Actuell position
AZ: 126.30
EL: 021.16

current state:
AZ=126.31 =>ok
EL=021.14 =>ok
IP=192.168.0.14
PO=52798

Issue V1.0 β



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WEBSERVER S III

Installation and Operating Manual

This auxiliary handbook ref. to the administration and use of the Web-Server; integrated in the ProfiTracker controller; only.

• **Important:** Before your programming and using the webserver, the antenna-control system (ProfiTracker) should be completely installed and ready for operation. The user should be able to selectd Satellite positions -via the bottoms of controller- surely.

Contents of the System-Package:

1 x the present manual

General function specification and summary:

• The integrated server is a Linux-based web server, which enables the operation of an EGIS EPS103 (ProfiTracker) - antenna -positioner in the intranet or internet.

• The one who is doing the set-up, who starts running this network or who is responsible for the installation should be familiar with the common/ generally used PC-based network-technology (LAN - Ethernet - Twisted Pair - RJ45 - IP-Address - Network-Mask) and the corresponding procedures!

To ensure communication with the network, the tracker/ positioner, respectively the web server is equipped with an Ethernet (Twisted pair; RJ45, 8P8C) - socket at the rear.

Via this interface, the connection is made to the user's intranet /internet.

On the backside of the controller you find MAC-no. of hardware.

Setup and administration

The internal server is ready for operation about 2 minutes after the EPS tracker controller has been switched on (booting).

As a first step, the web server registers automatically at the DHCP server of the network using the IP address which is assigned automatically by the DHCP server. In the DHCP server, this IP-number can be identified, predefined or - where required - assigned.

Using a normal web browser (for example MS Internet Explorer, Google (Mozilla), Apple Safari and others) and the IP (syntax: xxx.xxx.xxx.xxx) given by the administrator, this website can be called up. (see page 8 + 9)

Page overview/Web hierarchy

	user/working site
http://xxx.xxx.xxx.xxx	
http://xxx.xxx.xxx.xxx/admin.html	administration site
- A	Password allocation for the user of the antenna rotor
- B	Password allocation for the administrator
- C	Password allocation for the user/ client
- D	Viewing the login data
- E	Reading in the basic satellite list from the tracker control
- F	Create a list of favourite satellites
- G	Define parking position
- H	Set time/ date
- I	Define baud rate
- J	Set back NV-RAM
- K	Reboot system
- L	Shut down/switch off server system

Configuration of the web server:

In the first step, the web server of the EPS tracker is contacted using the IP address assigned by the DHCP-Server - through the network

(e.g. xxx.xxx.xxx.xxx./admin.html) and in doing so, a preset password is used, password: 'admin'. The user name is 'admin' and cannot be changed. This URL (web address) should be bookmarked. (See also *** at the end of the page.)

In the second step, changeable settings will be made, which should only be carried out by the administrator however.

The admin inputs are tested on a low level - therefore please consider your entries carefully.

Opposite to the working system of the web server, you will always have to go back to the starting point using the backward step function of the browser!

Critical steps require a safety input. In some cases, the browser will remember the entry and keeps it ready in case of recurrence.

The browser will also remember the admin login. The admin password is only requested once, after starting up the browser.

Later, you must assign an own individual admin password to the server. This newly assigned password only becomes active after booting again.

The system must be switched off, respectively shut down, on the administration site.

Enter your own beforehand assigned password, if required.

Before the use of the positioner device in the web, the **actuell satellite list** should be read from the internal antenna positioner controller into the webserver:

Enter the Administrator page (<http://xxx.xxx.xxx.xxx/admin.html>) of this webserver and click bottom 'GetNewSatList'. Caution: This read-in procedure can take up to **4 minutes!**

(Annotation concerning the assignment of a password:
Example: "P1" may be a bit too short; "P1q5p01098Tg" may be too long and too complicated. Caution: The password is case-sensitive.)

*** The setting up of ,reserved/fixed' IP addresses is slightly different, depending on the router or the DHCP server. As a general rule, the IP address which is to be assigned to the web server - which has to be within the range of the IP addresses, which the router/ DHCP server allocates - has to be entered into a table, together with the MAC address of the EGPOSER-LAN-adaptor:

For larger networks, the installation has to start in the router/DHCP-server:

- Enter MAC address:	XX XX XX XX XX XX
- Assign an IP address:	XXX.XXX.XXX.XXX

You will find the MAC address at the rear of the device.

In order to facilitate maintenance later, we recommend using always the same IP. The assignment takes place in the router/DHCP server.



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For the Administrator:

After the electrical installation of the tracker incl. controller, the system can be started. Follow here the the the next steps:

Pos. A • Assignment of new administrator password und "enter". Default: 'admin' The administrator name is 'admin' and can not be changed.

Pos. B • Here can be given a password of an authorized user of the system, resp. the antennen device. Default: 'Client'

This password will be used for each single action! (see pos, C)

Pos. C • Here you can determine, whether a password is needed for each single client action (selection of a satellite) or once at start of the first request.

Pos. D • Show content of actions log here

Pos. E • The complete satellite-list from the EGIS-rotors can be loaded onto the server and subsequently will be at the user's disposal. [Caution: by using lower baud rates this read in can take up to **4 minutes**].

You have to select "accept and store" to delete the existing list and insert the new one. * *

Pos. F • Select favourite satellites from basic sat list and save with "Ready" (at the end of the list)

Pos. G • Define of parkposition (default-values: AZ=180° & EL = 40°)

Pos. H • Set date & clock time

Pos. I • Change baudrate to EGIS-EPS-Tracker. The default-setting of the transmission rate between EGIS-rotor and EGIS-web server is **1200 baud**. Here it is possible to choose different values from a list. After this "enter". In case the baudrate should be changed, setting must be done in antenna positioner as well in the webserver

Pos. J • The non volatile memory (NV) is formatted. This means all data are deleted – also the log and settings. Afterwards the latter will have to be executed again. This option is only provided for emergency, i.e. when the memory should cause problems in case of power breakdown.

With every booting of the system the memory is checked and cleared-up, if necessary.

Pos. K • System new boot. This function corresponds with 'reset'-function on the client/user website. Is for 'case of need' foreseen. Thereby the communication logic between the client of the web server and the web server is newly reset. This is provided for emergency purposes only!

Pos. L • Shut down the webserver. The system has to be switched off, respectively shut down in the administrator's part. Doing this it has to be observed that in actual fact only the non-volatile memory is dismantled and the network connections are finished. The device will not be reachable any more then and has to be switched off manually.

CAUTION: Always use the back-button to go back to the previous page!

To access the actual user page, the user must simply enter the new local IP-address: <http://XXX.XXX.XXX.XXX> (see page 8 + 9)



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Details of administrator page:

A • Passwort Net-Administrator

Input field: 'password Admin'

Assignment of new administrator password und "enter".

Default: 'admin'

The administrator name is 'admin' and can not be changed.

B • Passwort Client

Input field: 'password user/client'

Here can be given a password of an authorized user of the system, resp. the antennen device.

Default: 'Client'

This password will be used for each single action! (see pos, C)

C • Passwort use presence

Input field: 'always/once'

Here/you can determine, whether a password is needet for each single client action (selection of a satellite) or once at start of the first request.

D • Retrieve and display content of Log-File

Input field: 'logging actions' & 'display'

Any actions changing the settings of the router are logged in a file for a period no more than a year. The log can be called up here.

Of course, the log can be printed out via browser or be saved as a file. This means, that statistics functions are applicable.

The data are stored on the not-volatile NV-memory.

E • Read in the basic satellite list from EPS controller part into the webserver

Input field: 'GetNewSatList'

The complete satellite-list from the EGIS-rotors can be loaded onto the server and subsequently will be at the user's disposal. (Caution: by using lower baud rates this read in can take up to 4 minutes).

You have to select "accept and store" to delete the existing list and insert the new one. **

F • Select favourite satellites from basic sat list

Input field: 'select favorite satellites' & 'select'

The user must click on the desired satellites to select them and save with "Ready".

The number of satellites is not critical.

G • Define of parkposition

Input field: 'parkposition'

Here it is possible to define the park position of the rotors, which deviate from the default-values (AZ=180° & EL = 40°).

The input field 'port' has no funtion for this system.

H • Set date & clock time

Input field: 'set date and time'

The clock time adjustment is possible at any time, but it should only become necessary for correction purposes. The clock con-

tinues to run for weeks even in case of cut of power supply and it is quartz-controlled. It is not advisable to make a difference between winter-and summertime, because this might confuse the log. To set the time correctly, the whole date-string has to be entered exactly as described.

I • Set baudrate to EGIS-EPS-Tracker

Input field: 'set baud-rate to EPS (all ports!)'

The default-setting of the transmission rate between EGIS-rotor and EGIS-web server is 1200 baud. Here it is possible to choose different values from a list. After this "enter".

In case the bodrate should be changed, setting must be done in antenna positioner aswell in the webserver

J • NV-Ram reset

Input field: 'reset NVRam (deleting all data!)'

The non volatile memory (NV) is formatted. This means all data are deleted – also the log and settings. Afterwards the latter will have to be executed again. This option is only provided for emergency, i.e. when the memory should cause problems in case of power breakdown.

With every booting of the system the memory is checked and cleared-up, if necessary.

K • System new boot

Input field: 'reboot system' & 'reboot'

This function corresponds with 'reset'-function on the client/user webside. Is for 'case of need' forseen.

Thereby the communication logic between the client of the web server and the web server is newly reset. This is provided for emergency purposes only!

L • Shut down the webserver

Input field: 'shut system down' & 'halt'

The system has to be switched off, respectively shut down in the administrator's part. Doing this it has to be observed that in actual fact only the non-volatile memory is dismounted and the network connections are finished. The device will not be reachable any more then and has to be switched off manually.

CAUTION: Always use the back-button to go back to the previous page!

To access the actual user page, the user must simply enter the new local IP-address: <http://XXX.XXX.XXX.XXX>

** Attention: Because this satellite list is created on basic of local antenna data und local made corrections, this 'read in'-procedure should done after finishing this activities!



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Installation and Operating Manual

Administrator-Web-Side:

Bi-Axial-AZ/EL-Rotor Web-Remote Control

powered by EGPOSER V4



Admin configuration

Password Admin

password	<input type="button" value="enter"/>
<input type="text"/>	A

Password client
define password here: (default: client)

password	<input type="button" value="enter"/>
<input type="text"/>	B

Require client password once per session or always

Current state is: **once**

C

logging of actions

D

Copy list of satellites from EPS into internal Webserver

E

Select favorite satellites

F

Parkposition

azimuth	elevation
<input type="text" value="180.00"/>	<input type="text" value="040.00"/>

G

Set date and time

entry-format MMDDhhmmYYYY (month-day-hour-min-year
112211222003)

H



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Contean Administrator-Web-Side:

Set baud-rate to EPS default: 1200

baudrate

enter

I

Reset NVRam (deleting all data!)

yes!

reset

J

Reboot system

yes!

reboot!

K

Shut system down

yes!

halt!

L



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Sample of information: "logging of actions":

```
oldest entries at the top
2006
Sun Sep 10 10:04:49 CEST 2006 AZ=090.00 error EL=040.00 error IP=192.168.22.1:49165 CH=1
Sun Sep 10 10:08:51 CEST 2006 AZ=090.00 error EL=040.00 error IP=192.168.22.1:49166 CH=1
Sun Sep 10 10:09:30 CEST 2006 SAT=Astra 1F ok IP=192.168.22.1:49168 CH=1
Sun Sep 10 10:10:11 CEST 2006 AZ=090.00 error EL=040.00 error IP=192.168.22.1:49169 CH=1
Sun Sep 10 10:11:11 CEST 2006 AZ=208.69 error EL=057.28 error IP=192.168.22.1:49171 CH=1
2006
Wed Nov 1 09:43:59 CET 2006 SAT=Astra 1F ok IP=192.168.22.2:49197 CH=1
Thu Nov 2 02:46:05 CET 2006 SAT=Astra 1E error IP=192.168.22.2:1058 CH=0
Thu Nov 2 02:47:46 CET 2006 AZ=132.02 ok EL=044.44 ok IP=192.168.22.2:1059 CH=0
Thu Nov 2 02:53:42 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.2:1065 CH=0
Thu Nov 2 15:38:09 CET 2006 AZ=111.00 ok EL=033.00 ok IP=192.168.22.2:1058 CH=0
Thu Nov 2 15:38:37 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.2:1060 CH=0
Thu Nov 2 16:28:13 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.2:1095 CH=0
Sun Nov 12 21:55:31 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.3:1106 CH=0
Sun Nov 12 21:58:28 CET 2006 AZ=166.53 ok EL=063.46 ok IP=192.168.22.3:1110 CH=0
Sun Nov 12 22:02:31 CET 2006 SAT=Astra 1C error IP=192.168.22.3:1117 CH=0
Sun Nov 12 22:03:34 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.3:1117 CH=0
Sun Nov 12 22:03:47 CET 2006 SAT=Astra 1C error IP=192.168.22.3:1119 CH=0
Sun Nov 12 22:04:54 CET 2006 AZ=166.53 ok EL=063.46 ok IP=192.168.22.3:1121 CH=0
Sun Nov 12 22:05:08 CET 2006 AZ=166.53 ok EL=063.46 ok IP=192.168.22.3:1123 CH=0
Sun Nov 12 22:07:52 CET 2006 AZ=090.00 ok EL=040.00 ok IP=192.168.22.3:1125 CH=0
Sun Nov 12 22:10:09 CET 2006 SAT=Hot Bird 1 error IP=192.168.22.3:1129 CH=0
Mon Nov 13 21:19:17 CET 2006 SAT=Thor 3 ok IP=192.168.22.3:1062 CH=0
Mon Nov 13 21:20:52 CET 2006 SAT=Hot Bird 8 >2006 ok IP=192.168.22.3:1065 CH=0
Mon Nov 13 21:21:21 CET 2006 SAT=Amos 1 ok IP=192.168.22.3:1067 CH=0
Mon Nov 13 21:47:36 CET 2006 AZ=180.00 ok EL=040.00 ok IP=192.168.22.3:1086 CH=0
Tue Nov 14 17:29:23 CET 2006 SAT=Intelsat 904 ok IP=192.168.22.3:1068 CH=0
```



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Operation by an Authorized Network-User:

To access the actual user-page of the rotors the user must simply enter the IP-address: **http://XXX.XXX.XXX.XXX**

The main window in the middle shows the **favourite satellites list**. As the case may be, it is necessary to scroll up and down within the list. A satellite is selected by a **click on its name** and **'get angles'**. After this the **user password** (assigned by the network administrator) has to be entered. A click on **"GO"** starts the rotor and the satellite will be approached.

In case you wish to go back to the favorite satlist, click 'Show Fav Sat-List' bottom.

For your information: All commands and actions, which have been triggered, run to the web-server via user PC and data network. This data transfer might - possibly - take place slowly. As soon as the command has been sent, the activity indicator will appear. The swinging antenna positioner symbol. Please have a little patience!

If the user wishes to display the **AZimuth-** and **Elevation-**angles belonging to the satellite, the key **"get angles"** has to be effectuated after the selection of the satellite. Then the angles will be displayed in the smaller windows below. Afterwards click on **"password"** and **"GO"**. **"GO"** will dial up the satellite.

If you want to approach a satellite which is not to be found in any of the two lists, you will have to enter **Azimuth- and elevation-angle** of this satellite in the both **small windows below**. Then click on **password** and **"GO"**. With **"GO"** this antenna position is dialled up. There have always to be filled in 5 digits: 3 before the comma, 2 after the comma.

"park position": A click on **"park position"**, **password** and then on **"GO"** the position preset by the administrator can be approached.

By hitting the key **"retrieve position"** the current alignment of the rotor can be scanned in angle grades. The angles are displayed in the corresponding **status field**.

"FOCUS": By hitting the key **"FOCUS"**, **password** and **"GO"** can initiated an **automatical fieldstrength-depending position improfment**. Now a sequential search is started from both axes to obtain a better antenna field-strength. After triggering this search may take up to 1,5 minutes.

It will only be possible to make use of this functionality, if the EGIS-positioner is equipped with an AGC-signal and if all

corresponding settings and procedures have been carried out correctly.

With **"Stop"** bottom, a running motor can be stopped. With **"Stop" + "Stop"**, both of the axes will be stopped. With this bottom some other function can be cancelled also.

In case the selected satellite is not hit exactly enough, a position improvement can be undertaken:

By actuating one or two arrow keys once or repeatedly, the correction value(s) are added to the latest position angles or respectively deducted. These angles will then be shown in the two AZ- and EL-angle-windows. The positioning will only be started after clicking on one of the two 'GO'-buttons.

The size of a single correction step can be changed in the 'Fine Tuning'-window (to be found on the right hand of the arrow navigation field). Here it may also be necessary to enter the user password in the corresponding window.

Possibly several corrections are necessary to obtain the desired results.

Attention! This position is not secured! If you move to another satellite afterwards, the acquired angles will be lost. Therefore there exists a possibility to save the acquired position: Just actuate the key 'Save Angles to Sat-List'. This corrects/ changes the current satellite list in the web server. Even when restarting the browser or web server, the updated angles will remain in the list.

It is possible to copy the complete satellite list onto the user's PC (key 'Download Sat-List'). This copy (text file) then can be printed out and/or worked on; it is also possible to transfer the list back onto the web server (key 'Load Sat-List').

Attention! You must not change the formatting of the list!

Caution!

- In order to solve problems within the internal network-communication, you may try to restore the system impressing the red **"restart"**-button. (It newly resets the communication logic between the client of the web server and the web server). Caution: the system need up to **2 minutes** for this reset!



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Installation and Operating Manual

Client-Browser-Surface

Bi-Axial-AZ/EL-Rotor Web-Remote Control

powered by EGPOSER V5



Current selected satellite: **055,00 E Insat 3E**

°AZ

°EL

Show Entire Sat-List

Restart

Favorite Sat-List: _____ (to show the complete satellite list, push button 'Entire Sat-List')

↑

← GO →

↓

STOP

Parkposition

Focus

GO

Load Sat-List

Download Sat-List

Save Angles To Sat-List

Fine Tuning Step Size:
0.2°

084,50 E TDRS 7 (incl. 127ß)

055,00 E Insat 3E

023,50 E Thor 2 (incl. 30ß)

019,20 E Astra 1L

013,00 E Hot Bird 8

time:
01.12. 08:35
Actuell position
AZ: 126.30
EL: 021.16

current state:
AZ=126.31 =>ok
EL=021.14 =>ok
IP=192.168.0.14
PO=52798

Retrieve Position

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