

## 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 T III

### Bi-Axial-AZ/EL-Positioner Web-Remote Control

powered by EGPOSER T V1.2

Current selected position number: 103

103.60 °AZ 000.00 °EL XYZ Name

GO

STOP

Parkposition

Focus

Retrieve Position

time:  
18.04.08:20  
Current position  
AZ: 180.00  
EL: 000.00

current state:

EGIS

Password:

Show Fav Pos-List

Restart

Entire Pos-List: (to show the favorite position list, push button 'Fav Pos-List')

100 Name  
101  
102  
103 XYZ  
104  
105

GO

Upload Pos-List

Download Pos-List

Save Position Data To Pos-List

Issue T V1.1 β



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# WEBSERVER T III

## Installation and Operating Manual

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

• *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!*

• **Important:** Before your programming and using the webserver, the antenna-control system (ProfiTracker) or EGPOSER 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.

*To ensure communication with the network, the EGPOSER, 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.*

Is a separate EGPOSER in use, a serial interface (RS232) fit a D-sub-9pol connector on the backside of body housing. Via this lead-out the connection to the EGIS-positioner (ProfiTracker) will be made.

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

### Setup and administration

The internal server is ready for operation about **3 minutes** after the 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, these both websites can be called up. (see page 8, 9 & 10)

### Page overview/Web hierarchy

http://xxx.xxx.xxx.xxx	user/working site
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 administration of the webserver 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. Caution: The password is case-sensitive. This URL (web address) should be bookmarked.

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, a **position list** should be read into the webserve:

Enter the Administrator page (<http://xxx.xxx.xxx.xxx/admin.html>) of this webserver and click bottom 'GetNewSatList'.

\*\*\* 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 WebServer-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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# WEBSERVER T III

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### For the Administrator:

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

**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** • A new empty position-list can be loaded onto the server and subsequently will be at the user's disposal. 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 park position (default-values: AZ = 180.00° & EL = 0.00°). These angles must be suit to the moving range of the antenna positioner!

**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.

**Pos. J** • The non volatile memory (NV) will be 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 working page, the user must simply enter the new local IP-address: <http://XXX.XXX.XXX.XXX> (see page 8, 9 & 10)



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# WEBSERVER T III

## Installation and Operating Manual

### 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 • Password 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 needed 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:* 'display' logging actions

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.

(See page 7 also)

#### E • Read in a empty basic position list into the webserver

*Input field:* 'GetNewPosList'

A new empty position-list can be loaded onto the server and subsequently will be at the user's disposal.

#### F • Select favourite satellites from basic position list

*Input field:* 'select' favorite satellites

The user must click on the desired positions to select them and save with "Ready" on the end of this list.

#### 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 = 0°).

#### 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 continues 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'

The default-setting of the transmission rate between EGIS-rotor and webserver 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.

#### 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.

Enter 'yes!' and click 'reset'

#### K • System new boot

*Input field:* 'reboot' system

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!

Enter 'yes!' and click 'reboot'

#### L • Shut down the webserver

*Input field:* 'halt' shut system down

**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.

Enter 'yes!' and click 'halt'

**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>



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Administrator-Web-Side:

### Bi-Axial-AZ/EL-Positioner Web-Remote Control

powered by EGPOSER T V1.1



## Admin configuration

Password Admin

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

Password client  
define password here:(default: client)

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

Require client password once per session or always

Current state is: always

C

logging of actions

D

Copy list of empty position list into Webserver

E

Select favorite positions

F

Parkposition

azimuth	elevation
<input type="text" value="180.00"/>	<input type="text" value="000.00"/>

G

Set date and time

entry-format MMDDhhmmYYYY (month-day-hour-min-year eg. 112211222)

H

Set baud-rate to EPS default: 1200

baudrate

I



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## Installation and Operating Manual

Contean Administrator-Web-Side:

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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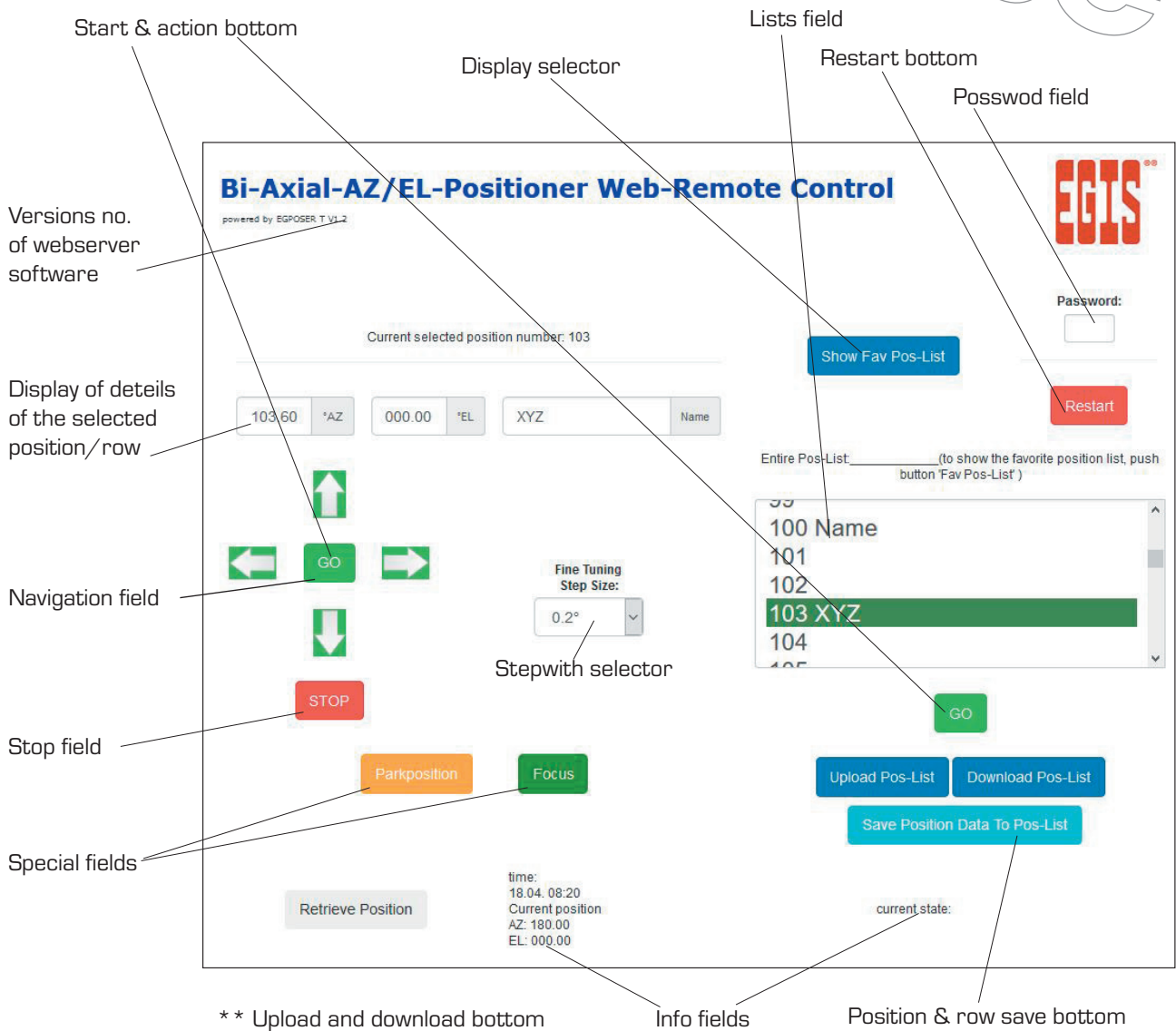
# Beta-Ausgabe

## WEBSERVER T III

### Installation and Operating Manual

Service by the device (client):

Information to the Client-Browser-surface:



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# WEBSERVER T III

## Installation and Operating Manual

### Operation by an Authorized Network-User:

To access the actual user-page of the system the user must simply enter the IP-address: **http://XXX.XXX.XXX.XXX** offered by datanet-administrator in the used internet browser.

The main window in the middle the app-window shows the **basis position list**. As the case may be, it is necessary to scroll up and down within the list. A position is selected by a **click on its number or name or line**. If this place was wrong take an other one.

Above the navigation field (arrows/pointers) angles and name of selected position can be seen.

Now this position can startet or modified.

After this the **user password** (assigned by the network administrator) has to be entered. A click on **"GO"** starts the rotor and these angles will be approached.

In case the angles of this position should be corrected, click the arrows to change angles or enter the angles directly in the numeric field (**AZ**imuth- and **EL**elevation-angles). In the name field enter the the name (don't use controll characters).

After this the **user password** has to be entered. And a click on **"GO"** starts the rotor and these angles will be approached.

In case you wish to go back to the **favorite position list**, 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 you want to approach a position which is not to be found in any of the two lists, you will have to enter **Azimuth- and elevation-angle** of this position 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"** die 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 position 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 position afterwards, the acquired angles will be lost. Therefore there exists a possibility to save the acquired position: Just actuate the key 'Save Angles to Pos-List'. This corrects/changes the current position 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 position list onto the user's PC (key 'Download Pos-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 'UpLoad Pos-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 restart 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 **3 minutes** for this reset!



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# WEBSERVER T III

## Installation and Operating Manual

### Client-Browser-Surface

### Bi-Axial-AZ/EL-Positioner Web-Remote Control

powered by EGPOSER T V1.2



Current selected position number: 103

103.60 °AZ

000.00 °EL

XYZ

Name

↑

← GO →

↓

STOP

Parkposition

Focus

Retrieve Position

time: 18.04.08:20  
Current position  
AZ: 180.00  
EL: 000.00

Show Fav Pos-List

Restart

Entire Pos-List: (to show the favorite position list, push button 'Fav Pos-List')

100 Name

101

102

103 XYZ

104

105

GO

Upload Pos-List

Download Pos-List

Save Position Data To Pos-List

current state:



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