

CARO®+



Premium

INSTRUCTIONS FOR USE

COMBINED WITH OPERATING INSTRUCTION
OYSTER® TV / OYSTER® SMART TV

TABLE OF CONTENTS

1. Operating elements

1.1 The first steps / Switching on and off	4
1.2 Antenna operation	6

2. Operating the system

2.1 Switching on / off	7
2.2 Open Sleep function	8
2.3 Button functions	9
2.4 ten Haaft® App - Download, installation and first software update	10

3. Service

3.1 Reception practice - obstacles in front of the satellite system	18
3.2 Reception in distant countries	19
3.3 Advisory tones / warning tones	23
3.4 Safety instructions	23
3.5 Malfunctions	24
3.6 FeatureBox update via USB stick	25

It is essential that you also observe the operating and installation instructions supplied as well as the operating instructions for the Oyster® TV.

1. OPERATING ELEMENTS

1.1 The first steps / Switching on and off

The fully automatic premium satellite system is operated primarily via the remote control of your Oyster® TV. The special keys for controlling the antenna (START, STOP, PARK) only work while the TV set is switched on.

Another convenient way to control the system is the ten Haaft® app. See page 9, item 2.4 „ten Haaft® App“.

In addition, the antenna can also be extended, stopped, and retracted by the left button on the control unit (FeatureBox).

SWITCHING ON / OFF

The Oyster® TV is switched to standby (red LED) or completely disconnected from the power supply by a mechanical main switch. For more information about the exact position of the main switch, refer to the operating instructions of the TV set. Start the TV set by pressing the POWER button on the remote control or the corresponding button on the close control panel on the back of the set.

The red LED changes to blue to signal that it is active.

After a few seconds, the home screen with the OYSTER® logo appears.

Attention!

If the TV is started with DVB-S (satellite reception), the antenna automatically starts to run out the fully automatic search, shortly after the start screen had appeared.

Please bear this in mind if your vehicle is parked in a garage or under a low roof or tree.

The runout process can be stopped by pressing the STOP button on the TV remote control.

Pressing the PARK button retracts the antenna again.

If the antenna does not run out after the TV set has been switched on, you may have selected an operating mode other than DVB-S. Switch the TV set to DVB-S to activate the antenna.

SWITCHING OFF

To switch the TV back to standby mode, press the POWER button on the Oyster® TV remote control. The antenna will start to retract immediately.

1. OPERATING ELEMENTS

OPERATING PRIORITY OF THE "OYSTER® TV" ON TWIN SYSTEMS (IF AVAILABLE)

If you have chosen a TWIN system with two "Oyster® TV" devices, the system can only be controlled by the FIRST "Oyster® TV". Usually this is the TV set in the living area of your motorhome. The second TV set cannot transmit control commands to the antenna's control unit. This TV is usually installed in the bedroom.

However, you always have the option of operating the system from your smartphone or tablet (IOS or Android) via the ten Haaft® app. See chapter 2.4 / page 9 of these operating instructions.

If you operate your satellite system using the app, this has priority first. This means that you can run in or extend the antenna or change the reception satellite even when the first TV is switched off; the app can control the antenna even if the first TV is switched off and only the second TV is active or even if no TV at all is active.

But when the Oyster® TV connected as the main TV is switched on, it immediately takes over the operating priority. Regardless of whether the antenna was previously run in or whether it has been set to a different satellite via the app in the meantime. The system will ensure that the programme set on the main TV can be received. This also happens when the main TV's START button on the remote control is pressed while the Oyster® TV is in operation. If necessary, the antenna will run out or newly orient itself to the satellite on which the currently set channel can be received.

When the main TV is switched off, the antenna runs in automatically even if the second TV is still to be operated. However, automatic running in can be stopped by the "Open Sleep" function. For further information, see chapter 2.2. on page 7.

However, the Open Sleep function must always be newly activated when it is to be used. Activation is only possible before the Oyster® TV is switched off.

When the second TV is to be operated without the main TV being switched on first, then you can also run out the antenna at any time using the app.

It will remain extended until:

- the main TV was switched on and off again,
- the app is used again, or
- the vehicle's ignition/the engine is activated (terminal 15/ D+).

1. OPERATING ELEMENTS

1.2 Antenna operation

With normal setup of the Oyster® Premium antenna system, no antenna operation is required. After switching on the TV set, the entire system operates fully automatically.

Nevertheless, you have the possibility to directly influence the antenna by various function keys on the Oyster® TV remote control. However, these keys can only be used during when the TV set is on. When in standby, the keys are not functional.

START: When this key is pressed, the system aligns with the satellite.

STOP: This key stops the moving antenna immediately in its actual position. Also used for Open Sleep, see chapter 2.2, page 7.

PARK: This key runs in the system immediately, even when the main TV set remains on.

COUNTRY: This key is used to inform the system of the current location via a screen menu. (e.g. South Germany, Northern Spain, etc.).

All other keys on the remote control of the Oyster® TV are used to operate the Oyster® TV. See the operating instructions for the Oyster® TV, item 1.3 "Remote control"

2. OPERATING THE SYSTEM

2.1 Switching on / off

Before using the satellite antenna:

Please make sure that the view towards the south is free of obstacles (no trees, high buildings, or mountains, etc.). Make sure there is enough space above the antenna to ensure unobstructed antenna movements. It may be possible that certain roof hatches on some motorhomes need to be closed, otherwise the antenna could collide with them.

Switch on the Oyster® TV in the operating mode "DVB-S" or "Satellite" and select the desired TV programme. The antenna will run out and newly orient itself automatically to the satellite on which your desired TV programme can be received. As soon as you select a programme from another satellite, the antenna will automatically align itself with the new satellite. If the Oyster® TV is switched off again, the antenna automatically runs in again. You do not have to take care of anything else. However, if desired, automatic running in of the antenna can be deactivated case on case by the Open Sleep function.

2. OPERATING THE SYSTEM

2.2 Open Sleep function

A STOP button is on the remote control for your Oyster® TV set. To activate Open Sleep, press the STOP button shortly before switching off the main TV set with the red POWER button (button sequence "Stop" - "Power"). This only switches off the main TV set and the antenna remains run out and active.





The next time the main TV set is switched on, it takes control of the antenna again. The next time the main TV is switched off, the antenna will run in automatically unless you activate Open Sleep again by pressing the STOP button.

Even with activated Open Sleep, the antenna will be run in automatically at the latest when the vehicle engine is started.

For safety reasons, the system must run in when the ignition of the vehicle is operated. To activate the antenna again, it is necessary to restart the "Oyster® TV" Premium device (use the remote control to switch it off and on again) with the car engine switched off, or to use the alternative operating method via the App or the left button of the control unit (FeatureBox).

2. OPERATING THE SYSTEM

2.3 Button functions

Button	Function
	The "COUNTRY" button calls the "Select Location" menu. This menu displays 47 European countries to be selected.
	The PARK button retracts the antenna. For example, this can be useful during storms.
	The STOP button stops the antenna in every position. Useful: If you want the antenna to remain extended, press the STOP key and then switch off the "Oyster® TV" within 15 seconds with the POWER key (Open Sleep). On a TWIN system, you can also switch off the main TV set and independently watch TV on the second set.
	The "START" button starts the "Automatic search". The system searches the last set satellite. The START button cancels the effects of the STOP and PARK buttons. If a warning buzzer sounds immediately after pressing the start button, the system cannot be run out because the vehicle ignition is still on, for example.

Please not:

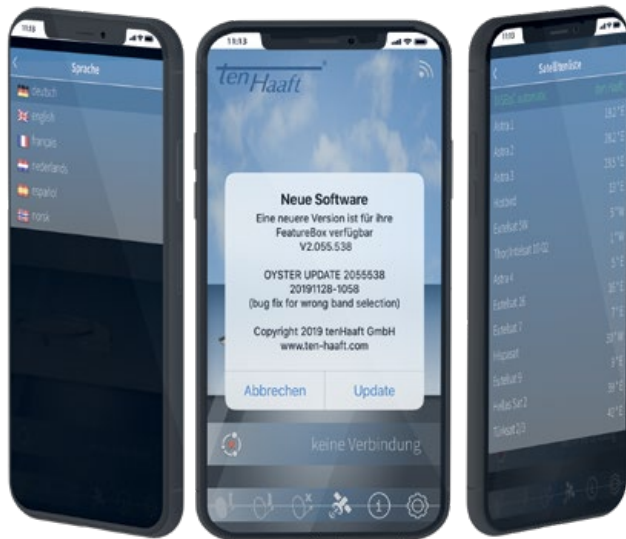
You do not need the buttons STOP / PARK / START in standard operation.

2. OPERATING THE SYSTEM

2.4 ten Haaft® app – download, installation and first software update

All ten Haaft mobile satellite systems can be operated in a particularly user-friendly way with the corresponding app. It is not only possible to operate the basic functions of the system, such as extending and retracting the antenna, but also to make very detailed system settings or call up information about the current operating status of the system conveniently via the screen of your smartphone.

A major advantage of the ten Haaft® app is the intuitive software update function for the satellite system. Regular software updates are essential for the smooth operation of the satellite system, as functionally important databases are brought up to date. You are automatically notified of available updates when starting the ten Haaft app. The download and installation of the software is then largely automated and only requires a few taps on the screen by the user.

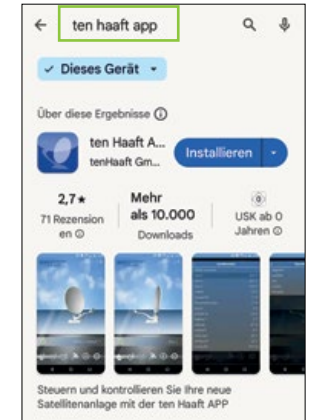


2. OPERATING THE SYSTEM

Visit the Apple App Store or the Google Play Store and search for "ten Haaft". Download the app free of charge and open it.

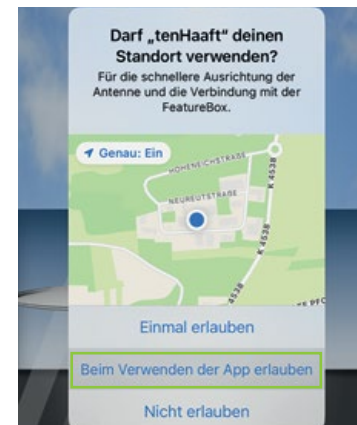


iPhone

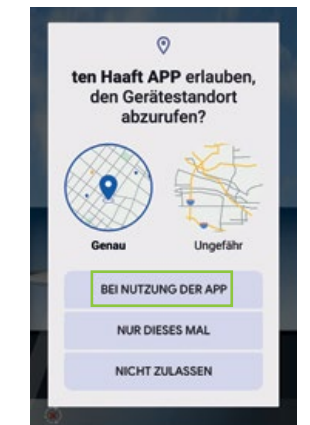


Android

During installation, the app requests access to location sharing. This authorisation needs to be granted at least while using the app. The app can also use the location data to automatically inform your satellite system of the current location so that the satellite can be found more quickly. Some smartphone operating systems may not even allow you to use the app without location sharing.

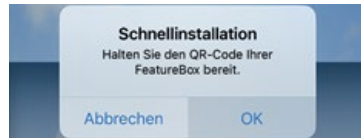


iPhone



Android

2. OPERATING THE SYSTEM

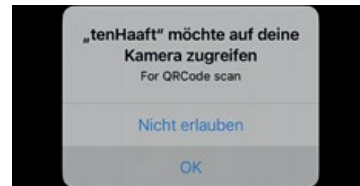


The app will prompt you for a few details during the installation process, such as whether you have the QR code for the FeatureBox. Please note that your FeatureBox will be shipped with three identical labels. This label contains the Wi-Fi name/SSID and the Wi-Fi password for your FeatureBox. Each FeatureBox has its own name and password.

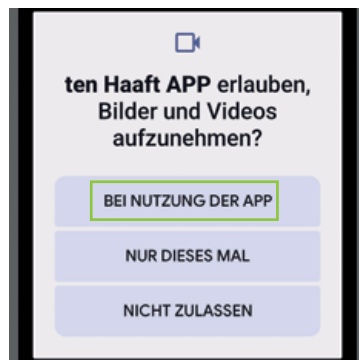
One label is already affixed to the FeatureBox at the factory, a second label is also already affixed to this description at the factory. You can affix the third label to a place of your choice.

The label on your FeatureBox always has priority for the operation of your system!

Now the app needs access to your device's camera, otherwise the QR code cannot be scanned.



iPhone



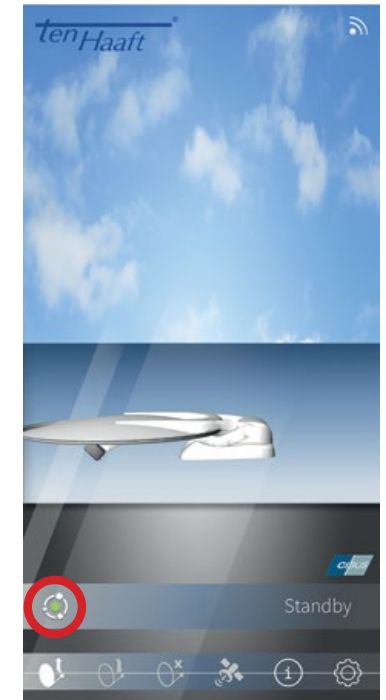
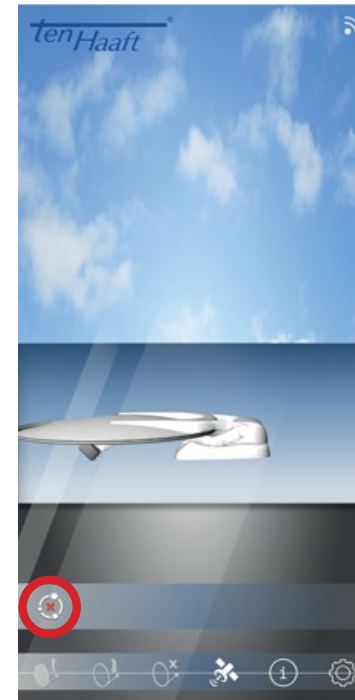
Android

Then aim the camera at the QR code on your device. Once the code has been recognised, the next step is initiated:

Please confirm that you wish to connect to the Wi-Fi as shown on the screen.

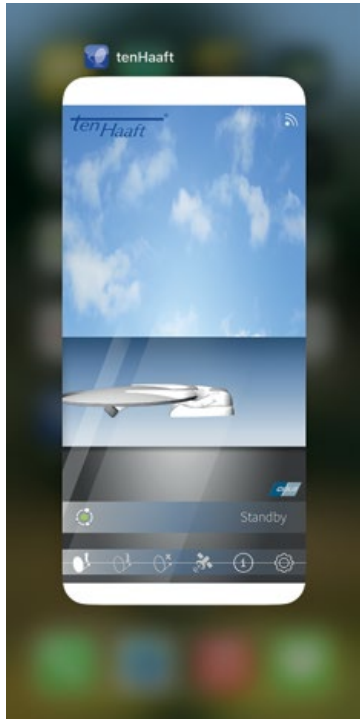


2. OPERATING THE SYSTEM



The red or green dot in the lower left-hand corner symbolises the connection status between the ten Haaft app and the FeatureBox: A red "X" indicates a missing connection, a green dot indicates an active connection. Normally, the status should change from the red "X" to the green dot after a few seconds. If not, you can initiate the connection again by clicking on the red "X".

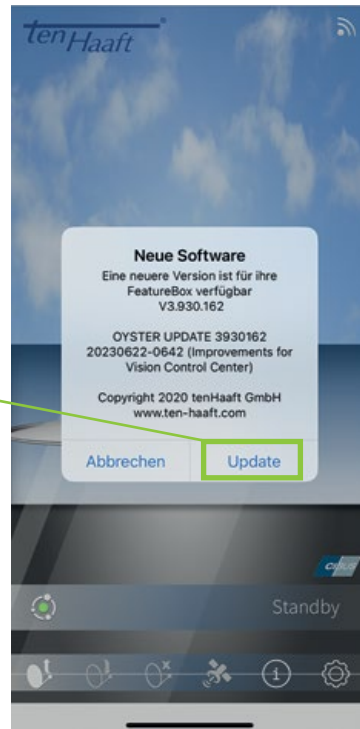
2. OPERATING THE SYSTEM



Important intermediate step: For some smartphone operating systems, it is recommended to close the app completely. This means that the app is not just moved to the background, but actually closed.

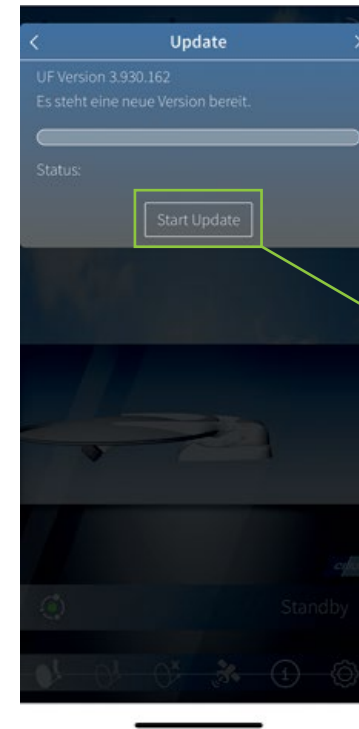
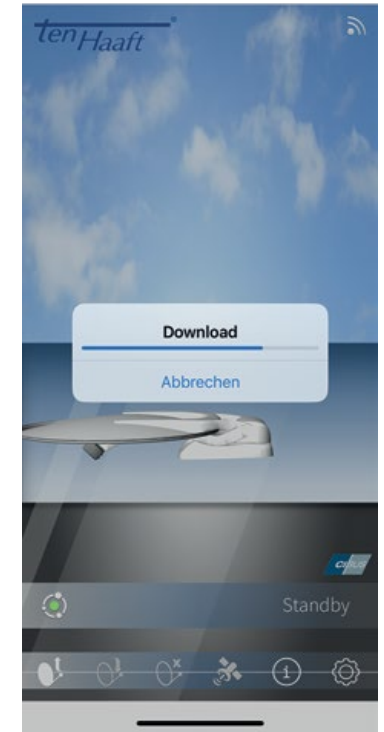
The next time you start the app, it will automatically check whether more recent software for your system is available on the ten Haaft server. Some smartphone operating systems also do this automatically.

Then please click on "Update".



2. OPERATING THE SYSTEM

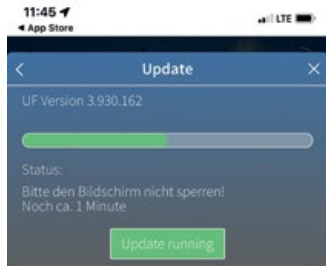
Software is downloaded from the smartphone via its LTE connection. The size of the download is only approx. 3-4 megabytes. Please make sure that your smartphone has a working internet connection.



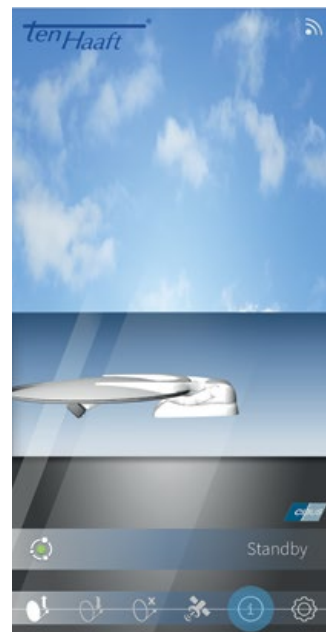
Once the download is complete, the app automatically checks whether the latest software is already installed on your system. If not, it will automatically suggest an update.

For this purpose, click on "Start Update".

2. OPERATING THE SYSTEM



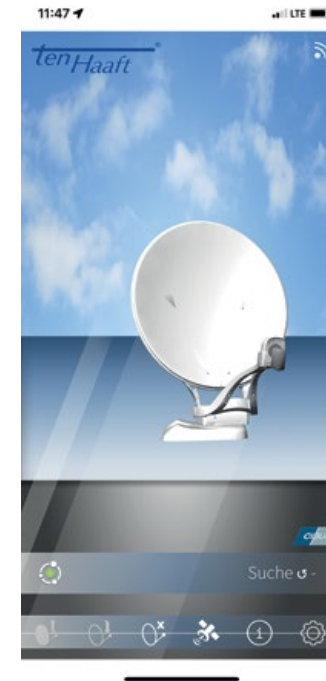
During the installation of the software update, you will see a green bar showing the progress. Normally, the image at the top right should show when the installation is complete. With some smartphone operating systems, however, the bar sometimes stops in the middle and then does not move any further. In this case, please wait another three minutes approximately and then close the app and restart it.



You can then easily check the successful installation of the software update yourself:

Tap on the "i" icon at the bottom right and then compare the two series of numbers that appear at "UF Version FB" and "UF Version APP". If both numbers are the same, then the software in the FeatureBox has already been successfully updated.

2. OPERATING THE SYSTEM



If you have any further questions, please do not hesitate to contact us. Please call us at +49 (0) 7231 / 58 588 0. You can also find more information and explanations about the ten Haaft app on our YouTube Channel at ten Haaft GmbH, or scan the QR code.



3. SERVICE

3.1 Reception in practice – aiming the satellite system

Satellite antennas are aimed at a satellite along three adjustment planes:

1. AZIMUTH ANGLE (COMPASS HEADING)

The azimuth angle defines the horizontal setting of the antenna, specifying the angle between North and antenna heading. It depends on the geographic position of the receiver and the satellite selected.

For example, Astra 1 (orbital position 19.2° East) has an azimuth of 173° in Berlin but 143° in southern Spain.

2. ELEVATION ANGLE (INCLINATION)

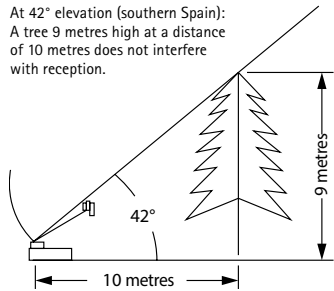
The elevation angle indicates the height of the satellite above the horizon. Like the azimuth angle, it depends on the position of the receiver and the satellite selected. In Central Europe, it is typically between 25° to 35°, decreasing as you move further North.

3. SKEW ANGLE (POLARISATION DEVIATION)

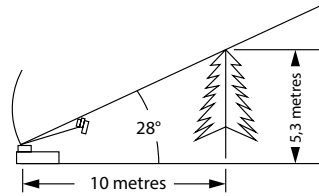
For optimal reception at the fringe of the satellites' footprints in southwestern and southeastern regions, the LNB may have to be rotated to compensate for the polarisation deviation caused by the earth's curvature.

OBSTACLES IN FRONT OF THE ANTENNA

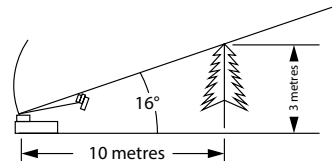
At 42° elevation (southern Spain):
A tree 9 metres high at a distance of 10 metres does not interfere with reception.



At 28° elevation (northern Germany):
A tree over 5 metres high at a distance of 10 metres does not usually interfere with reception.



At 16° elevation (Northern Europe):
A tree with a height of only 3 metres at a distance of 10 metres can already interfere with reception.



3. SERVICE

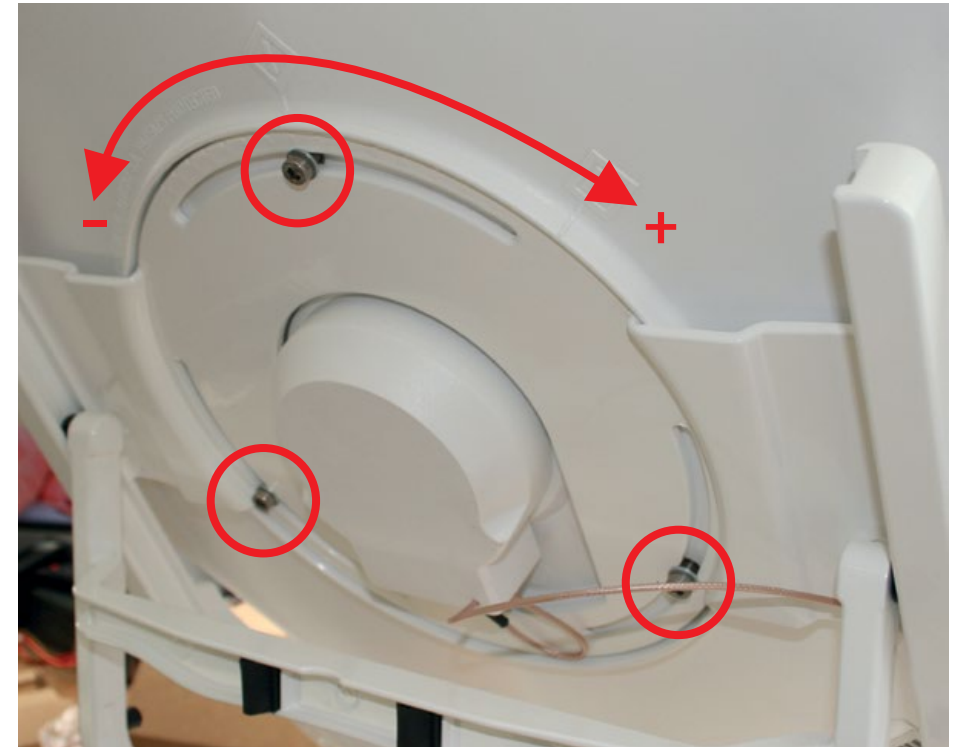
3.2 Reception in distant countries

LNB SETTINGS IN DIFFERENT REGIONS:

This section describes how to fine-tune the LNB to optimise reception in the fringe of a TV satellite's footprint. This requires loosening the LNB bolts and turning the LNB by a specific angle. This is only required in the fringe areas of a satellite's footprint. It should be performed by expert users only.

All satellites broadcasting channels of interest to Central European viewers are aimed at Central Europe. In locations outside this area, the antenna has a "sideways view" on the satellite. This effect is known as the "SKEW angle" or "polarisation angle" and occurs particularly in southern regions such as Portugal, Spain, Morocco, Greece, Turkey, and most extremely on the Canary Islands. The effect is mostly compensated by the receiver's electronics, but sometimes some manual fine-tuning is required by pivoting the LNB (reception head) by some degrees.

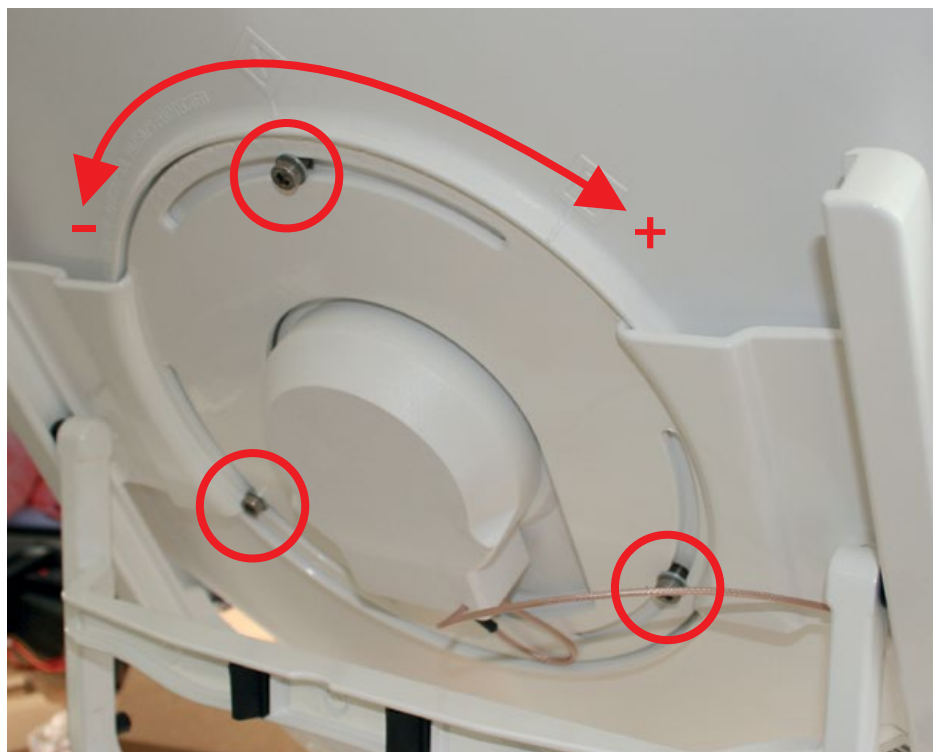
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3. SERVICE

For the following tables and angle specifications, the following applies as a definition: To determine the direction of rotation, the viewer, like the antenna, looks towards the satellite, i.e. he stands behind or next to the antenna. The complete antenna must be rotated.

- Rotation directions IN THE CLOCK SENSES are negative (-).
- Rotation directions AGAINST the clockwise direction are positive (+).
- When rotating in the „-“ direction, the antenna is moved DOWN to the LEFT.
- When rotating in the „+“ direction, the antenna is moved DOWN to the RIGHT.



3. SERVICE

LNB set-up in different areas:

Country	Eutelsat 5° West	Thor 0.8° West	Astra 4 4.8° East	Hotbird 13° East	Astra 1 19.2° East	Astra 3 23.5° East	Astra 2 28.2° East
Germany, Austria, Switzerland	-23°	-16°	-12°	-6°	0°	4°	8°
France	-15°	-11°	-5°	2°	7°	11°	14°
BeNeLux countries	-16°	-12°	-8°	-2°	3°	6°	9°
United Kingdom	-9°	-6°	-3°	3°	7°	10°	12°
Ireland	-6°	-3°	1°	7°	11°	13°	16°
Portugal	-4°	1°	8°	16°	22°	25°	28°
Southern Spain, Gibraltar	-8°	-3°	5°	14°	20°	24°	28°
Scandinavia	-19°	-16°	-14°	-9°	-6°	-4°	-2°
Greece	-38°	-35°	-29°	-20°	-12°	-7°	0°
Turkey, Hungaria, Belarus	-39°	-36°	-31°	-26°	-20°	-15°	-11°
Canary Islands	12°	18°	26°	34°	39°	42°	44°
Morocco	-8°	-2°	6°	17°	23°	27°	31°
Italy, Sicily	-27°	-24°	-17°	-8°	-2°	3°	8°
Croatia	-27°	-24°	-19°	-11°	-5°	-1°	4
Tunisia, Libya	-27°	-22°	-15°	-4°	4°	9°	15°

Note: This table only contains guideline values for the Skew angle. Corrections below approximately 8° do not necessarily need to be carried out as long as good reception is ensured. "Fine-tuning" the SKEW angle often makes it possible to receive satellites in areas that are actually already well outside the coverage area. You can read about the actual coverage areas of the individual satellites at www.lyngsat.com or www.satcodx.com. These two websites provide general, interesting information about the range of channels and the reach of satellite television.

3. SERVICE

3.3 Advisory tones / warning tones

Your FeatureBox has a sound signal generator to alert you in special situations.

3.3.1 Warning tones traffic safety

When the ignition is activated with open antenna, a single short beep is triggered. This serves as a warning that the antenna is still open and needs some time to fully run in.

If the system cannot completely run in when the ignition is activated, a permanent warning tone sounds.

3.3.2 Warning tones for on-board voltage

If you hear a short triple beep while the antenna is receiving, check the charge level of your on-board battery. This warning tone is repeated every minute while the on-board voltage is low. If the on-board voltage continues to drop, the warning tone repeats every 15 seconds.

If a triple warning tone sounds immediately after the system is switched on, the system cannot be run out because the on-board voltage is too weak.

3.4 Safety instructions

Safety functions of the satellite system:

Under certain circumstances, the antenna can (re-)retract on its own.

For example:

- An internal defect is detected while running out.
- The on-board voltage supply in the vehicle falls below a critical value during the movement of the system.
- Terminal 15/D+ is active or was active for a short moment.

3. SERVICE

3.5 Malfunctions

Stop function

It must be possible to stop the movement of the antenna at any time. A satellite search can be paused or interrupted by the Stop button on the remote control of the Oyster® TV or the Power button on the FeatureBox. After pressing one of these buttons, no more control commands are accepted and therefore, for example, no more satellites are changed.

Resetting the stop function

This stop function is cancelled by a new movement command, e.g. by pressing the start button on the remote control for the Oyster® TV or the power button on the FeatureBox.

Error description	Troubleshooting
No signal could be received when searching for a satellite.	Do you have a clear view to the south? Are you within the reception range of the set search satellites? Would your location or Skew angle of the LNB need to be changed?
The system does not run out or run in correctly.	Do objects protrude into the antenna's moving range? Too weak a power supply (low battery)?
The antenna does not react after switching on or does not respond to commands.	Is the fuse ok? Are all connections plugged correctly?
FeatureBox signal tone.	If the system receives the run-in command from terminal 15 / D+ line (it is essential that it is connected correctly), but no feedback is given to the FeatureBox, a signal tone will sound. Check whether the system has run in.

3. SERVICE







3.6 FeatureBox update via USB stick

In addition to the automatic update via app, i.e. the usual variant, there is also the option of a manual update via USB stick.

A FAT/FAT32 formatted USB stick is required onto which the file `tenhaaft.uf` is copied into the root directory (top level).

The UF file is available on the website <https://ten-haaft.com/updates/>.

The maximum size of the file is approximately 6 Mbyte, so the storage capacity of the USB stick does not play a role.

Sequence	Description
	Switch on the FeatureBox! The picture shows a switched-off FeatureBox in standby mode (left LED is red).
	In this picture, the box is active (left LED is green).
	Insert the USB flash drive into the socket labelled "USB" on the back of the box. The USB flash drive then shows reading activity (flashes), and both LEDs on the front now light up (green on the left, or later red, red, or red flashing on the right).
	
	In this state, the data of the flash drive is transferred to the internal update memory. Depending on the flash drive and the update volume, this may take a while (< 2 min) and must not be interrupted!
	The right red LED goes off permanently when this step is completed. After that, the USB stick can be disconnected from the FeatureBox.
	A possibly blue LED, which might be on, does not interfere with this!

3. SERVICE

BLUE LED

Once the data is available in the internal update memory, it can be distributed to the connected hardware components. If feasible, this happens automatically. However, it is often impossible to update everything immediately because the FeatureBox does not know the status of a component (for example, because the antenna is not even connected at the time of the update).






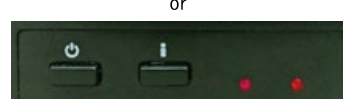
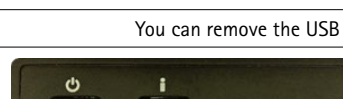
This condition is neither unusual nor critical!

The user is only alerted by a blue LED lighting up that he can now press the "i" button to try an update.

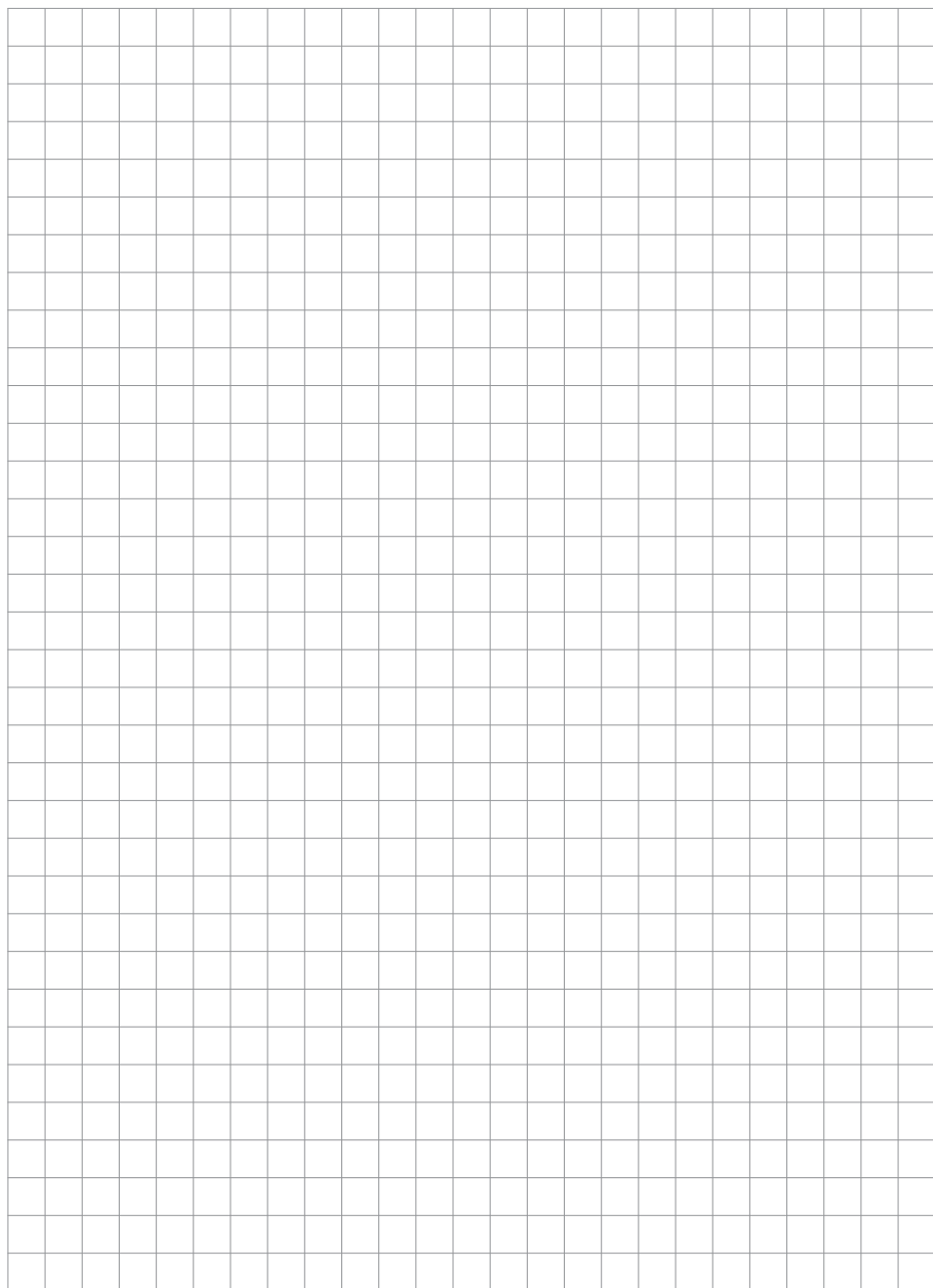
UPDATE SEQUENCE

The components connected to a FeatureBox are updated in a fixed order: At first the FeatureBox itself and then the antenna's motor control.

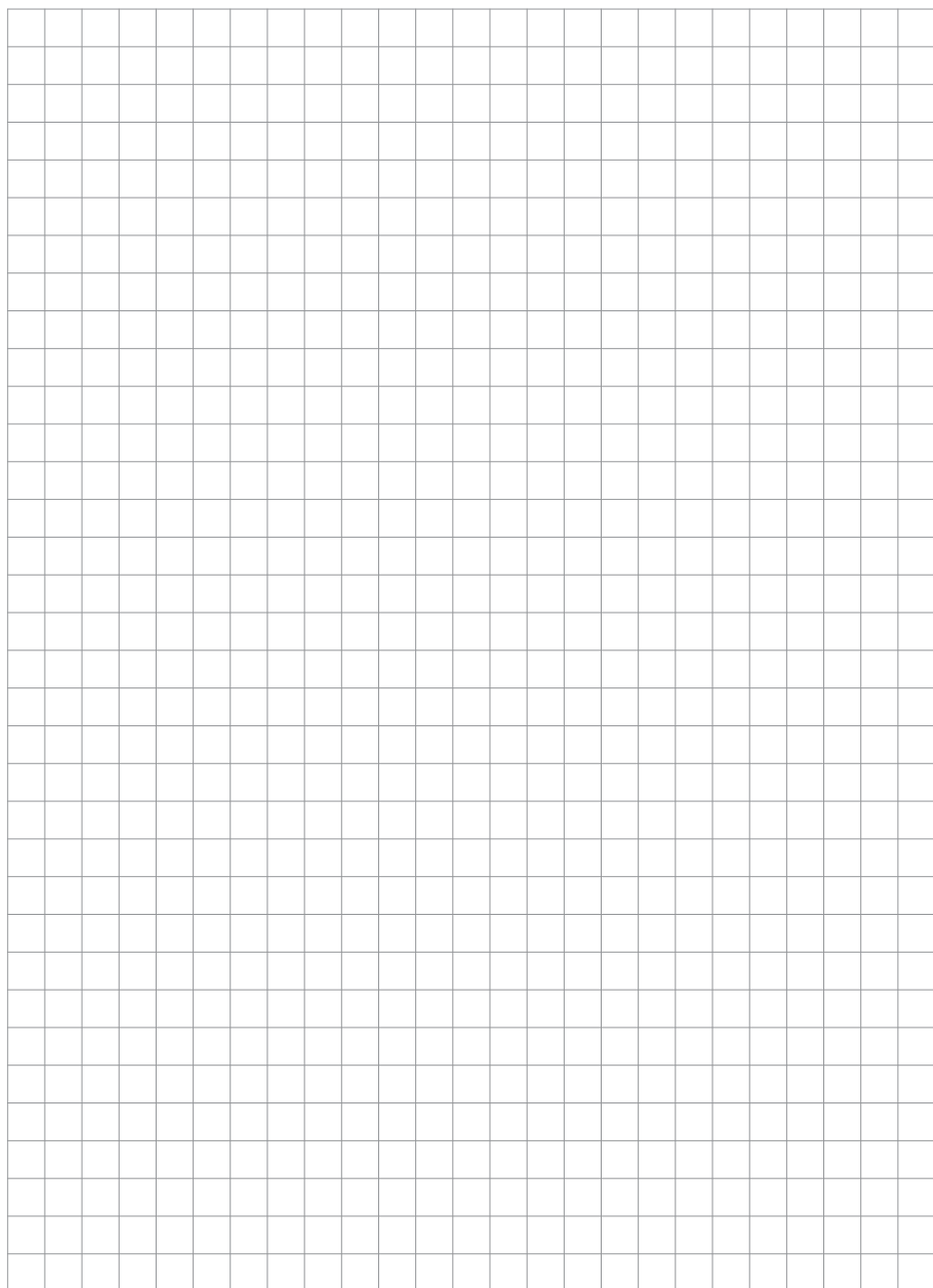
For safety reasons, a motor control is only updated after it has been reliably detected and the antenna is run in. Therefore, pressing the "i" key with the blue LED being on may trigger the antenna to run in.

Sequence	Description
	Is switched off (standby) --> Switch on
	Is switched on --> Insert USB flash drive
	Something is transmitted or updated --> Keep your hand off and wait!
	
You can remove the USB flash drive after the right red LED is permanently OFF	
	--> Press i-button

NOTES



NOTES





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